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ABSTRACT

The fifth report of the Michigan Educational Assessment Program contains education profiles for State school districts, schools and pupils. The profiles deal with: (1) human resources--such as pupil/teacher ratio and percent of teachers with master's degree; (2) school financial resources--such as local revenue per pupil and State school aid per pupil; (3) student background; (4) school/student performance (grades 4 and 7)--attitude measures, basic skills measures, and dropout rate; and (5) school or district size. The profiles present information assembled separately for each of five community types--metropolitan core city, city, urban fringe, town, and rural. Within this framework, profiles are constructed from: (1) district-level mean scores on the educational assessment measures; (2) school-level mean scores; and (3) individual pupil scores. Precautions that should be observed and definitions of statistical terms are included. Appendix A contains definitions of the five community types; the measures used in the educational assessment program are defined in Appendix B. (For related documents, see TM 002 326, 328-330.) (KM)

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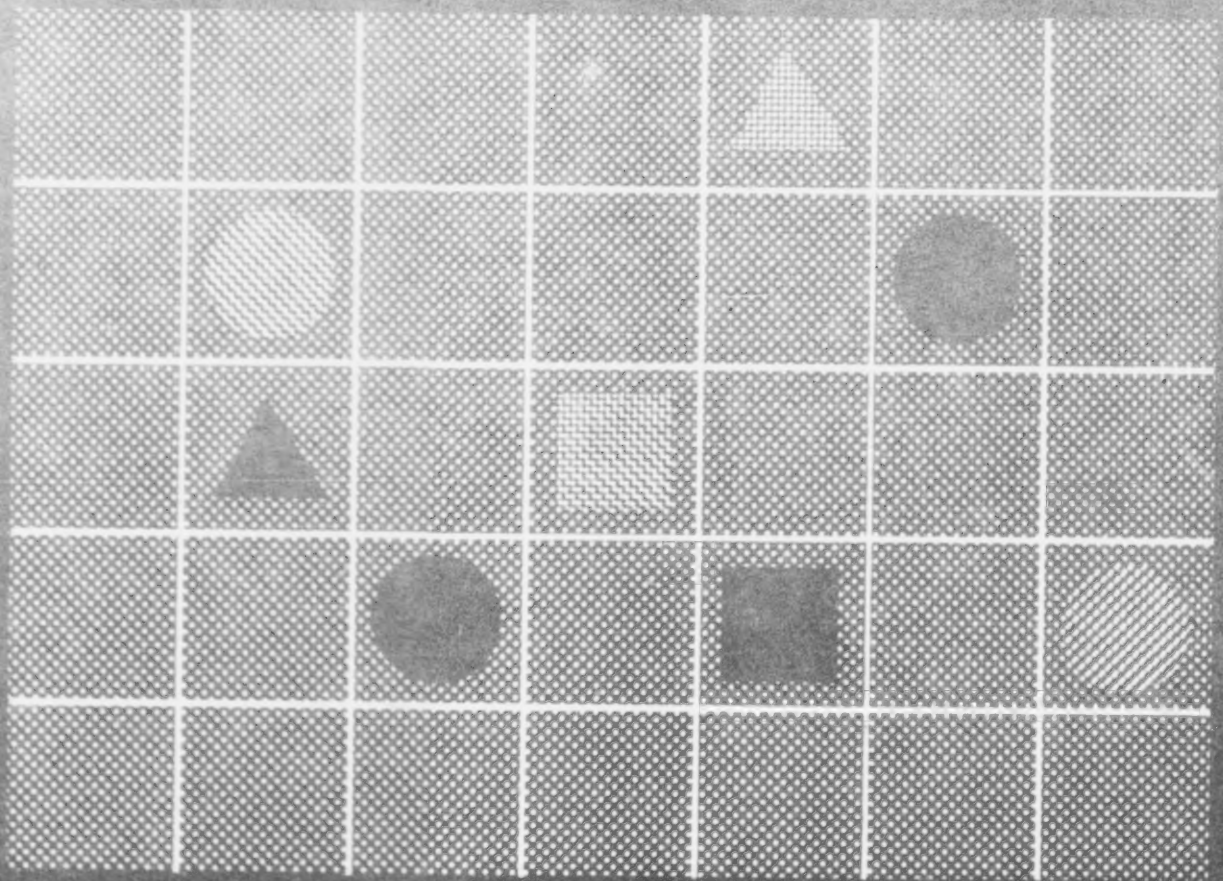
LEVELS OF EDUCATIONAL PERFORMANCE AND RELATED FACTORS

THE FIFTH REPORT OF THE 1970-71
MICHIGAN EDUCATIONAL ASSESSMENT PROGRAM



TM 002 227

MICHIGAN DEPARTMENT OF EDUCATION JUNE 1972

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LEVELS OF EDUCATIONAL PERFORMANCE AND RELATED FACTORS IN MICHIGAN

The Fifth Report of the 1970-71
Michigan Educational Assessment Program

Prepared by Research, Evaluation and Assessment Services

Michigan Department of Education

June, 1972

FOREWORD

The Michigan Educational Assessment Program was initiated by the State Board of Education, supported by the Governor, and funded by the legislature initially through enactment of Act 307 of the Public Acts of 1969, and subsequently under Act 38 of the Public Acts of 1970. This report, the fifth in the 1970-71 series, provides data which indicate the levels of educational performance and the levels of certain factors related to performance within Michigan's community types.

The State Board of Education has adopted a six-step process as a guide or model for improving Michigan education. The six steps are: the identification of common goals, the development of performance objectives, the assessment of educational needs, the analysis of delivery systems, the evaluation and testing of these systems or programs, and recommendations for educational improvement. This report presents information for the third step--the assessment of educational needs. Educational assessment provides general information on student needs which, along with other information gathered by local educators, will assist in identifying areas of need on the part of local schools and pupils. Analysis of the systems for delivering educational services and the specific evaluations of the areas so identified may then be initiated by local school officials in order to determine the extent to which changes in curricula and resource allocations are justified. Thus, the educational assessment program can contribute to the improvement of educational programs for Michigan children and youth.

Thanks are due to a large number of individuals and groups for making the Michigan Educational Assessment Program a reality and for continuing to work with it in its second year, 1970-71: to the State Board of Education for initially proposing it and continuing to support it, to the Governor and legislature for actively supporting it, and to Michigan educators for assisting with it. The program was designed and administered by the Research, Evaluation, and Assessment Services Unit, Michigan Department of Education, with the assistance of Educational Testing Service of Princeton, New Jersey, and the counsel of several *ad hoc* advisory groups.

This report was prepared by Dr. David Donovan, Mr. Robert Huyser, Dr. Philip Kearney, Mrs. June Olsen, and Dr. Daniel E. Schooley. Questions or requests for additional information relative to this report should be directed to the educational assessment staff, telephone (517) 373-1830.

John W. Porter
Superintendent of
Public Instruction

INTRODUCTION

This report, the fifth in the 1970-71 educational assessment series, contains education profiles for Michigan's school districts, schools, and pupils. The profiles are designed to answer one basic question: What is the level of basic skills achievement and of other educational assessment measures in Michigan and in Michigan's community types? Careful examination of the profiles will help the reader to understand: (1) the levels of basic skills performance at grades four and seven in communications skills (reading, and mechanics of written English) and mathematics; and (2) the levels of certain factors presumed to be related to performance--expenditures per pupil, average experience of teachers, and so forth.

By referring to the education profiles the reader will be able to view the levels of basic skills performance and of factors related to performance from several different vantage points. The basic frame of reference will be the State as a whole. Using this frame of reference, the profiles present information assembled separately for each of five community types--metropolitan core city, city, urban fringe, town or rural. Within this basic framework, the reader will be able to examine profiles constructed from: (1) district-level mean scores on the educational assessment measures; (2) school-level mean scores; and (3) individiual pupil scores.

The report has six sections and two appendices. Highlights of the report are presented in Section I. Section II indicates certain precautions that should be observed and defines certain statistical terms that must be understood in order to properly interpret the information in this report. Section III explains how the education profiles were constructed. Section IV presents education profiles constructed from district-level information. Section V presents education profiles constructed from school-level information. Section VI presents education profiles constructed from pupil scores. Appendix A contains defintions of the five community types; the measures used in the educational assessment program are defined in Appendix B.

SECTION I

HIGHLIGHTS OF THE EDUCATIONAL LEVELS IN EACH OF THE FIVE COMMUNITY TYPES

The first section of this report highlights the levels of educational performance and related educational factors in the metropolitan core, city, town, urban fringe, and rural community types. These highlights are not intended as comprehensive summaries. Readers interested in a complete description of the educational assessment data which have been summarized for each community type are invited to read Sections IV, V, and VI in this report.

Also, READERS ARE CAUTIONED THAT THE FOLLOWING HIGHLIGHTS DO NOT IMPLY CAUSE AND EFFECT RELATIONSHIPS AMONG THESE EDUCATIONAL FACTORS. Section II discusses in greater detail this and other cautions.

The measures presented in the following tables were selected because of their value in illustrating the main findings of this report. Specific measures were chosen to indicate the average levels of human resources, financial resources, pupil backgrounds, and pupil achievements observed in each community type group.

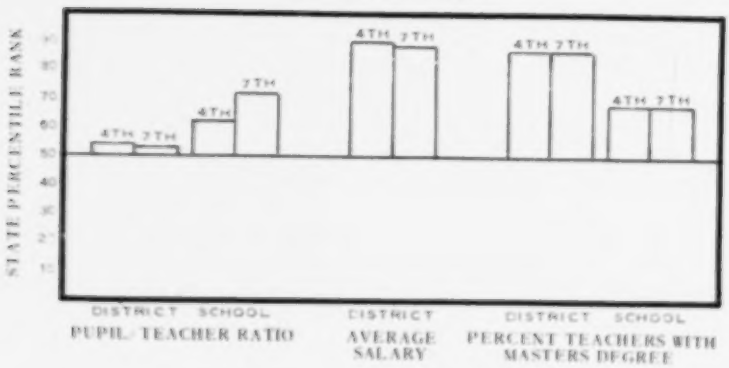
These levels are illustrated using results from both fourth and seventh grade and by aggregating them at pupil, school and district levels wherever possible in order to lend perspective to the data. For example, if the average level of mathematics achievement in a community type is high according to fourth grade district means, the reader can readily determine whether the average level is also high according to pupil score means and whether it is equally high at both grade levels. A similar determination can be made using the average of the school means within that community type.

When utilizing these highlight tables, it should be noted that averages of district means are always ranked among district means throughout the state; averages of school means are always ranked among school means throughout the state; and averages of pupil scores are always ranked among pupil scores throughout the state.

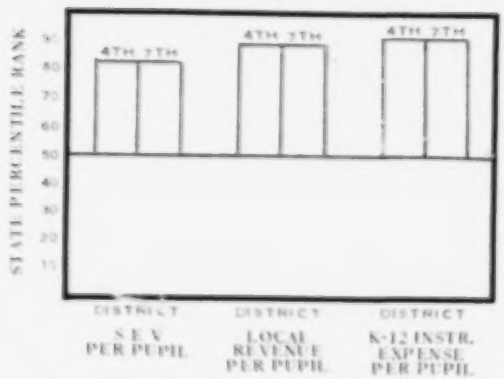
In certain instances, the same data summarized at the district or school or pupil levels does not appear to agree. This apparent discrepancy can generally be accounted for by the fact that large districts exert a strong influence on averages based upon pupil scores within a given community type, and somewhat less influence upon averages of school means. But large and small districts have equal weight in determining the averages of district means.

I. METROPOLITAN CORE COMMUNITY TYPE

HUMAN RESOURCES



FINANCIAL RESOURCES



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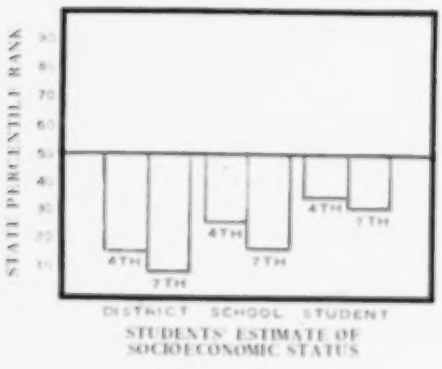

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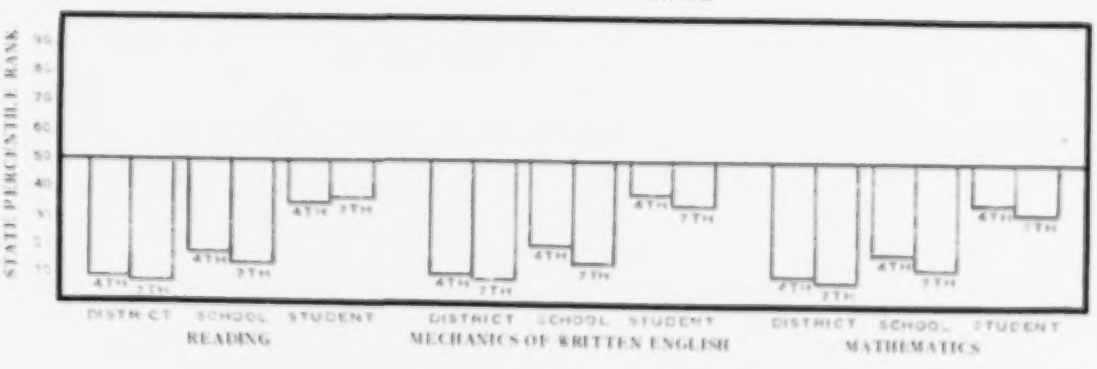


I. METROPOLITAN CORE COMMUNITY TYPE

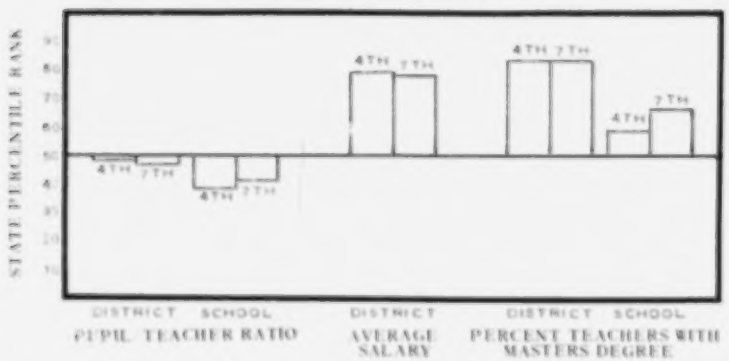
HIGHLIGHTS

- High Human Resources
- Above Average Pupil/Teacher Ratios*
- High Financial Resources
- Low Socioeconomic Status
- Low Basic Skills Performance

*It should be noted that many educators consider a high pupil/teacher ratio as unfavorable in terms of educational outcomes.

II. CITY COMMUNITY TYPE

HUMAN RESOURCES



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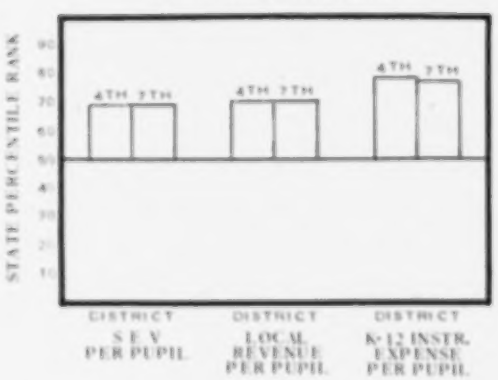

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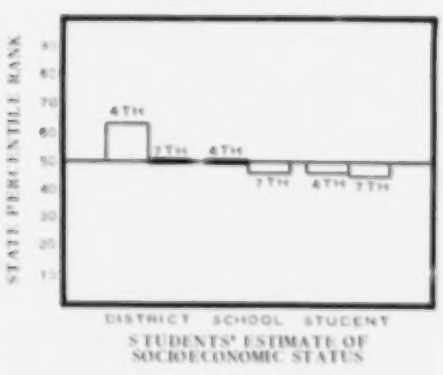

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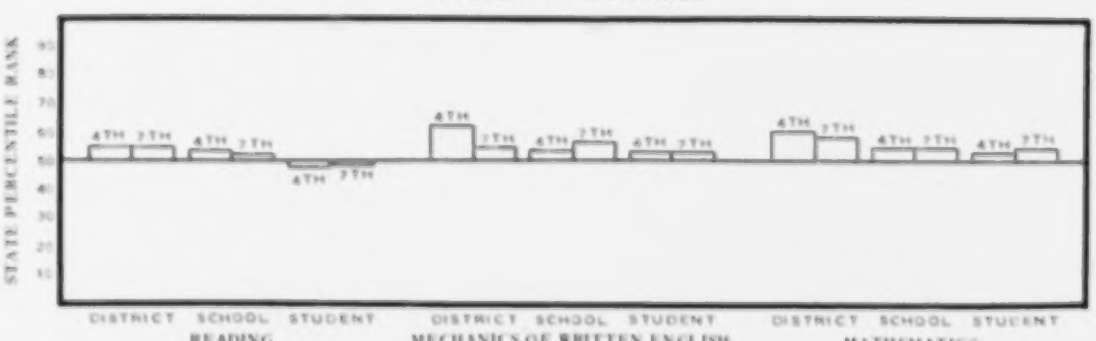
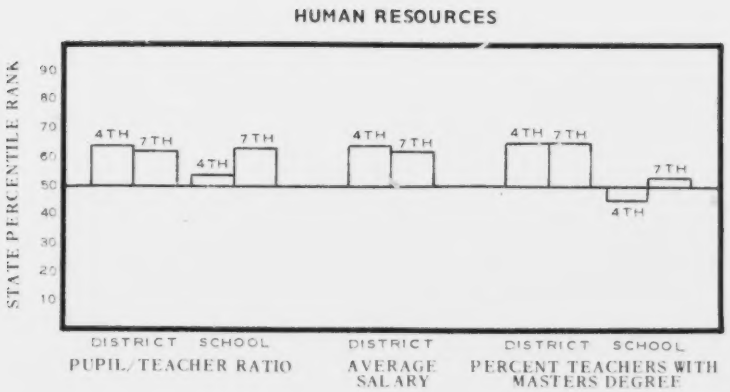


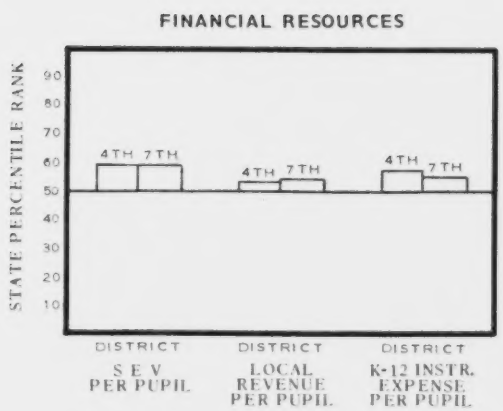
II. CITY COMMUNITY TYPE

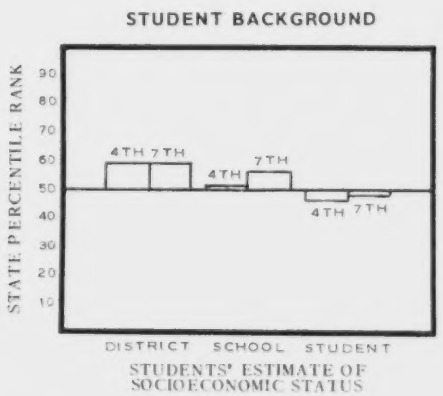
HIGHLIGHTS

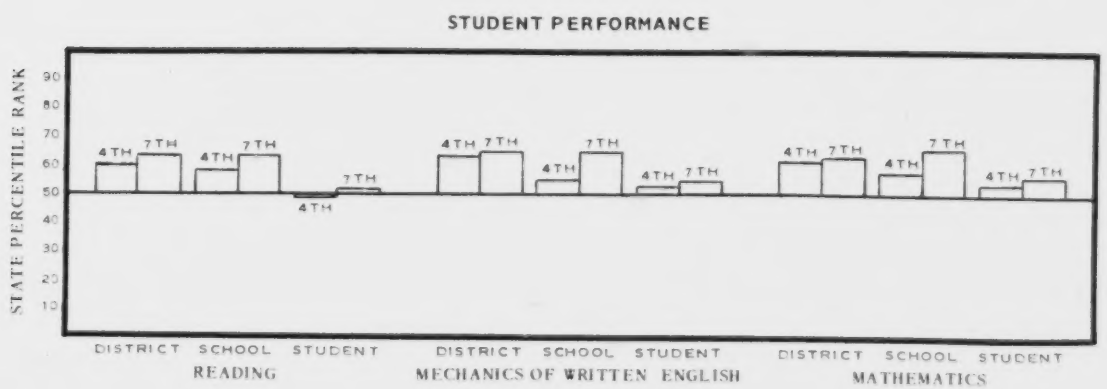
- High Human Resources
- About Average Pupil/Teacher Ratios
- High Financial Resources
- About Average Socioeconomic Status
- About Average Basic Skills Performance

III. TOWN COMMUNITY TYPE









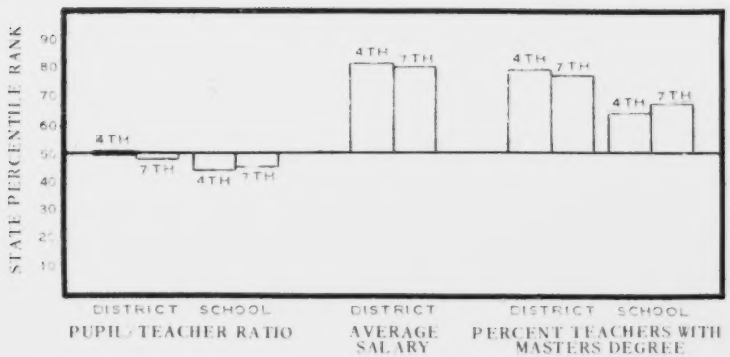
III. TOWN COMMUNITY TYPE

HIGHLIGHTS

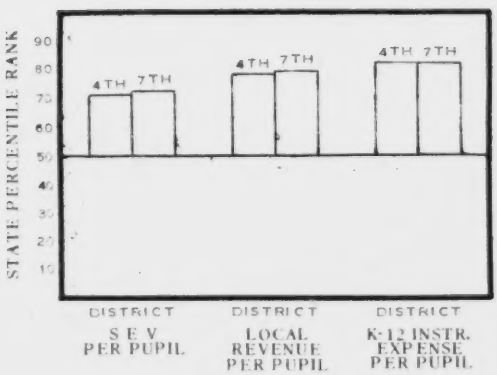
- Above Average Human Resources
- Somewhat High Pupil/Teacher Ratios
- Above Average Financial Resources
- High Socioeconomic Status
- Above Average Basic Skills Performance

IV. URBAN FRINGE COMMUNITY TYPE

HUMAN RESOURCES



FINANCIAL RESOURCES



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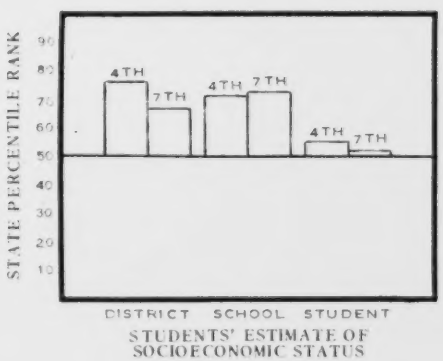
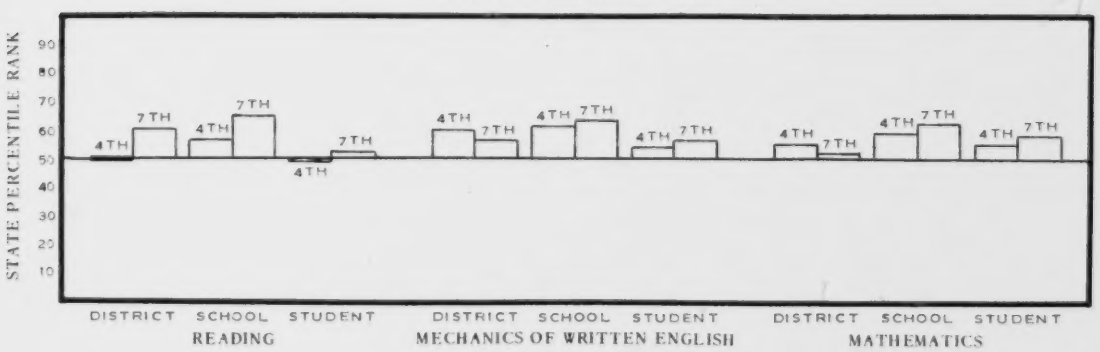


STUDENT PERFORMANCE



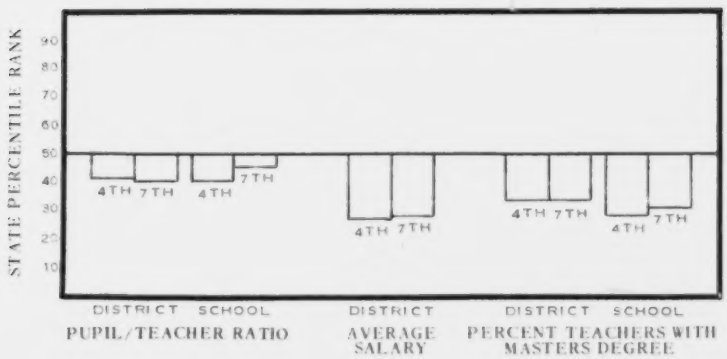
IV. URBAN FRINGE COMMUNITY TYPE

HIGHLIGHTS

- High Human Resources
- Somewhat Low Pupil/Teacher Ratios
- High Financial Resources
- High Socioeconomic Status
- Above Average Basic Skills Performance

V. RURAL COMMUNITY TYPE

HUMAN RESOURCES



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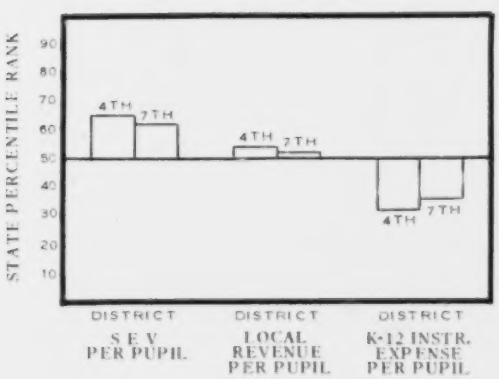

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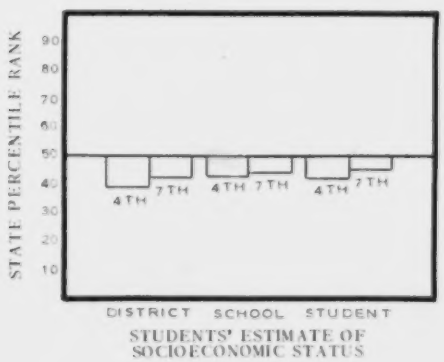

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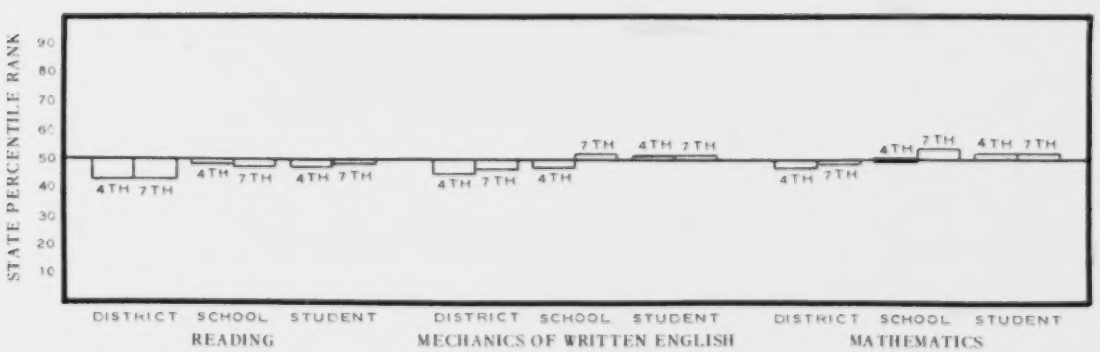


V. RURAL COMMUNITY TYPE

HIGHLIGHTS

- Below Average Human Resources
- Below Average Pupil/Teacher Ratios
- Below Average Financial Resources
- Below Average Socioeconomic Status
- Slightly Below Average Basic Skills Performance

SECTION II

QUALIFYING INFORMATION AND STATISTICAL TERMS NECESSARY FOR THE INTERPRETATION OF THE EDUCATIONAL ASSESSMENT DATA

It is the purpose of Part 1 in this section to discuss qualifying information regarding the use of educational assessment data, including certain cautions that should be exercised in the interpretation of these data. The second part of this section defines certain statistical terms which must be understood by the reader in order to properly interpret the information in this report.

Part 1

Qualifying Information

This part discusses the following qualifying information: (1) scope of the educational assessment data; (2) cautions to be exercised in interpretation; (3) value of other data; and (4) accuracy of district and school means.

Scope of the Educational Assessment Data

Relation to the goals of education: Michigan's schools serve a variety of purposes. While they obviously exist to teach the basic communication and computational skills of reading, writing, and arithmetic, Michigan's educational goals are not limited to the basic skills. School offerings commonly include at least five other areas, namely, (1) social science, (2) fine arts, (3) science, (4) health and physical education, and (5) occupational skills. The 1970-71 educational assessment effort, however, dealt only with the basic communication and computational skills and measured the achievement of children in vocabulary, reading, use of the mechanics of written English and

mathematics.

Measuring school/pupil performance: It is difficult to build tests that are equally valid for children from varied cultural and economic backgrounds. Therefore, the reader should be aware that responses to the assessment battery yield only an approximate index to the basic skills of children.

Measuring student background: Socioeconomic status (SES) is a difficult concept to define--in fact no single definition of it will suit everyone. Additionally, once it has been defined, it is even more difficult to measure and index.

Students' socioeconomic status is thought by many social scientists to be a composite of three major factors: (1) family income; (2) parents' educational levels; and (3) parents' occupations. Additionally, such factors as (4) housing quality and crowdedness; (5) family structure and stability; and (6) population density are thought to be indicators of SES.

Four methods (parent interviews, student estimates, educator estimates, and census data) of estimating the social-economic backgrounds of students were considered for use in the educational assessment program. Students' estimates, which were selected as the primary data source, have been shown to provide valid estimates for groups of children, are convenient, and are moderate in cost. The method may be limited in that some children--particularly young children--do not know important things about their families, including income and occupation. Twenty-seven questions designed to assess the socioeconomic background of groups of pupils were used in the 1970-71 educational assessment. The measure was not designed to yield individual pupil scores. For this reason, as well as to respect and preserve the private nature of the information, childrens' responses were anonymous, therefore, no information

on the SES of individual children is available from the program. The socio-economic status scores should be considered and interpreted as estimates of the social-economic background of groups of students.

Measuring school resources: The selection of school resource information for large-scale assessment efforts such as the 1970-71 Michigan Educational Assessment Program is limited by the availability of data, as well as by our present knowledge regarding anticipated relationships between those factors and educational performance. Despite several research studies, it is still impossible to state with certainty which school-related factors have an impact on educational performance. It is also impossible to measure all aspects of educational programs. Therefore, there may be factors of an educational system crucial to learning which are not included in the present educational assessment effort. However, each measure included was selected because existing evidence suggests that it may be related to educational performance.

Inferences Regarding Relationships in this Report

This report is designed to indicate the levels of districts, schools, or pupils on certain educational measures in Michigan's community types. Conclusions should not be drawn about relationships among the factors described in this report. Because one factor in a community type, for example, socioeconomic status, is at the same level as another factor, for example, composite achievement, does not necessarily mean that a cause-effect relationship exists between the two factors. Similarly, if one factor, for example, attitude toward school, is at a different level than another factor, for example, vocabulary, this does not necessarily mean there is not a cause-effect relationship between the factors. Future assessment reports will explore the question of relationships among educational assessment measures.

Part 2

Statistical Terms

The definitions of the statistical terms identified below need to be understood by the reader in order for him to properly interpret the information presented in this report. It should be noted that in order to provide greater clarity, these definitions have been rewritten from those presented in last year's reports.

Mean

A mean is an average of a set of figures and is obtained by adding all of the figures in the set and dividing the sum by the total number of figures.

Median

The median is that point in a range of scores above which are exactly half the scores and below which are the other half. Thus, the median is that point in the "middle" of a distribution of scores.

Standard Deviation

In addition to establishing a mean for a distribution of scores, it is often useful to know the "spread" of the scores. Two groups of scores could have the same mean but the "spread" still be quite different. For example, district A might have children whose scores on composite achievement cluster together around their mean of 50. In this district the "spread" of scores would be small. District B might have a number of children with high scores and a number of children with low scores and still have a mean of 50. In this district, however, the "spread" of scores would be large.

One common way of indicating the "spread" of scores is to calculate a standard deviation. The standard deviation is a method of indicating how much "spread" there is in a distribution of scores. Usually about two-thirds of

the scores will fall within a range extending from one standard deviation above the mean to one standard deviation below the mean. The larger the standard deviation, the larger will be the "spread" or variability in the scores of a distribution. In the example above, the district with the mixture of high and low scores would have a larger standard deviation than would the district with similar scores.

Standard Scores

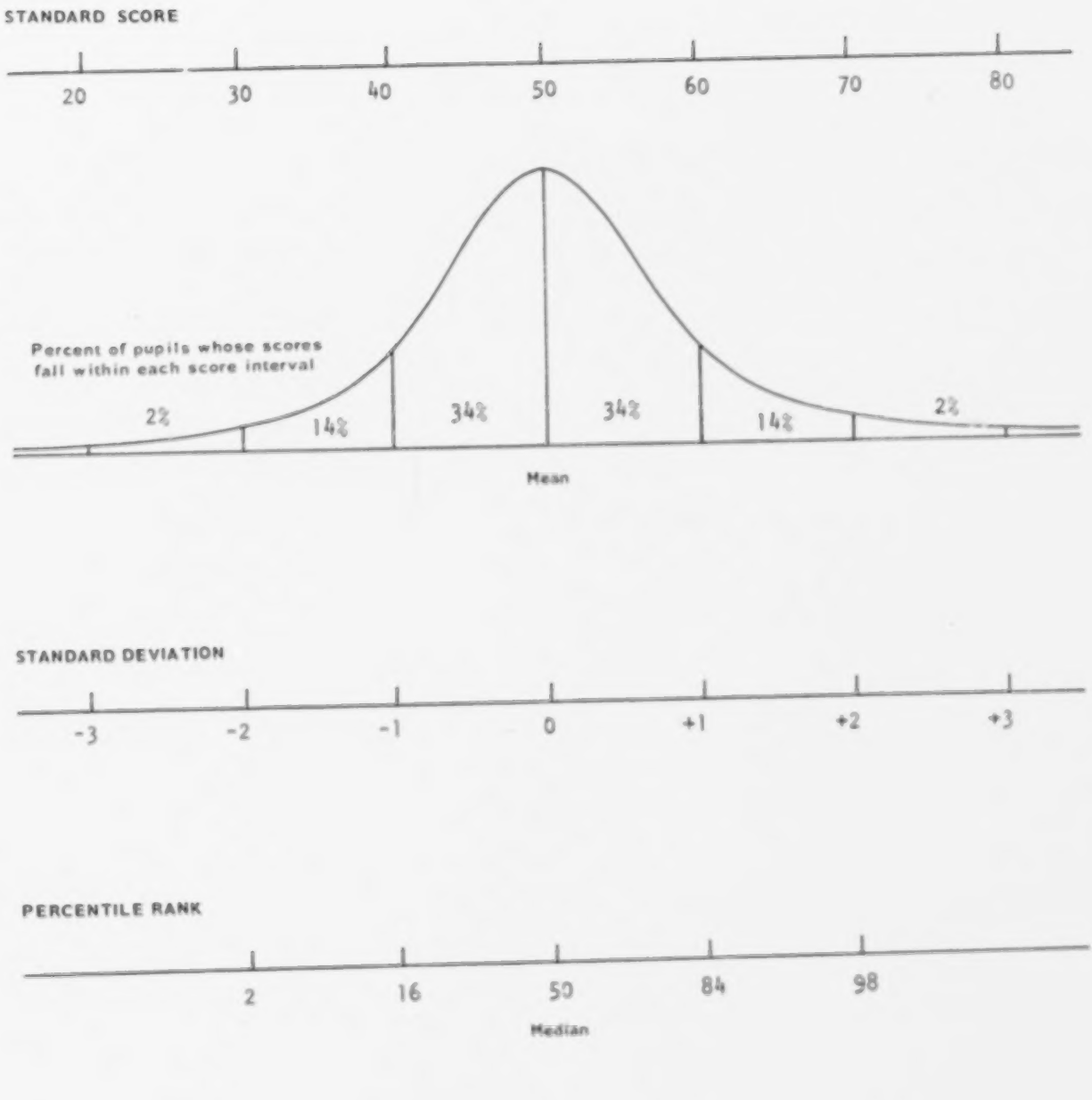
Standard scores are scores that are calculated from "raw" or response scores using the mean and standard deviation. In the Michigan Educational Assessment Program, standard scores were developed so that the pupil mean score from any pupil assessment measure would be 50 and the standard deviation ten, when computed for all pupils tested at the same grade level. Figure 1 illustrates the relationship between standard scores, standard deviation and pupil percentile ranks for a normally distributed set of scores. From this figure it can be seen that a standard score of 40 is one standard deviation below the state mean; a standard score of 60 is one standard deviation above the mean; a standard score of 65 is one and one-half standard deviations above the mean; and so forth. The means for each district were computed from the standard scores of all pupils at the same grade level tested by the district.

Percentile Distribution

A percentile distribution is a ranking of scores which is divided into 100 equal parts, each part having an equal number--one percent--of the total number of scores. Percentile distributions add meaning to scores by showing where particular scores lie in relation to some comparison groups of other scores. For example, a school district mean at the 50th percentile on a distribution of district means would be at the median--or middle--of the

FIGURE I.

Relationship Between Standard Scores, Standard Deviation and Percentile Ranks
for a Normally Distributed Set of Scores



distribution of district mears. A district mean at the 75th percentile would be at or above 75 percent--and at or below 25 percent--of the district means in the comparison group.

A percentile distribution can be prepared using pupil scores, school means or district means--with distinctly different results. The choice of data is not arbitrary, but depends upon the question to be answered. Generally it is appropriate to interpret averages of district means using percentile distributions of district means; averages of school means are ranked among school means; and averages of pupil scores are interpreted using percentile distributions of pupil scores.

SECTION III

EXPLANATION OF THE EDUCATION PROFILES IN THIS REPORT

Construction of the Education Profiles

Education profiles for the five community types employed in the Michigan Educational Assessment Program have been prepared separately from fourth and seventh grade data. These data are displayed on profiles based on statewide district, school or pupil scores.

As an example, the district-level education profiles were constructed as follows (it should be noted that the school and pupil profiles were similarly constructed except that they used school or pupil scores as the basic unit of analysis rather than district scores):

1. A percentile distribution was computed for each of the educational assessment measures. A district score which is at the 50th percentile is at the median or middle of the distribution; a district score at the 75th percentile is at or above 75 percent or three-quarters--and at or below 25 percent or one quarter--of the district scores in the distribution.

2. The mean score of Michigan's districts within each community type was computed. This was accomplished by adding up the scores of the districts in a given community type and dividing by the number of districts in that community type. Each district was given equal weight regardless of its enrollment.

3. The mean scores computed in step two were plotted onto the percentile distribution built in step one.

Example 1--which is an exact replica of the fourth grade level education profile for Michigan districts--may be used to describe how the profiles were built. It was constructed as follows:

1. A percentile distribution was prepared using statewide fourth grade assessment data for district scores on pupil/professional instructional staff ratio. This distribution indicates that the median or middle district in the state had a score of 21.5 on pupil/professional instructional staff ratio. The mean score of the districts in the state was computed for pupil/professional instructional staff ratio. The mean score was also determined to be 21.5. At this point, it should be noted that the mean and median on pupil/professional instructional staff ratio were identical. For most of the measures reported in the table, the mean and median scores will be similar. However, for certain measures (state equalized valuation per resident pupil, local revenue per pupil, percent of racial-ethnic minority students, school dropout rate, and district state aid membership) the mean and median will be quite different due to the asymmetric distribution of scores in the state.

2. The mean score of the districts in each community type was computed for pupil/professional instructional staff ratio. This average was determined to be 20.8 for the districts in community type I - Metropolitan Core Cities, 21.1 for II - Cities, 22.1 for III - Towns, 21.1 for IV - Urban Fringe and 21.5 for V - Rural.[1]

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[1]Complete definitions of each community type are contained in Appendix A.

EXAMPLE 1. PERCENTILE DISTRIBUTION

GRADE 4 DISTRICT

PERCENTILE DISTRIBUTION	SCHOOL RESOURCES											
	HUMAN RESOURCES							SCHOOL FINANCIAL RESOURCES				
	(1) PUPIL PROF. INSTRUC-TIONAL STAFF RATIO	(2) PUPIL/ TEACHER RATIO	(3) PERCENT TEACHERS WITH 5 OR MORE YEARS EXPERI-ENCE	(4) AVERAGE YEARS TEACHING EXPERI-ENCE	(5) PERCENT TEACHERS WITH MASTERS DEGREE	(6) PERCENT TEACHERS EARNING $11,000 OR MORE	(7) AVERAGE SALARY OF TEACHERS (1969-70)	(8) STATE EQUALIZED VALUATION PER RESIDENT PUPIL (1969-70)	(9) LOCAL REVE-NUE PER PUPIL (69-70)	(10) STATE SCHOOL AID PER PUPIL (69-70)	(11) K-12 INSTRUC-TIONAL EXPENSE PER PUPIL (1969-70)	(12) TOTAL CURREN OPER-ATING EXPENS PER PUPIL (1969-7
95	26.0	28.0	100	14	43	57	10846	31790	756	444	605	893
90	24.7	27.0	75	13	36	52	10306	23845	606	425	571	802
85	23.9	26.6	71	12	33	47	9996	21514	503	411	537	758
80	23.5	26.1	68	12	29	43	9785	19092	470	398	512	718
75	23.1	25.7	65	11	26	39	9626	17412	432	389	494	695
70	22.7	25.3	63	11	25	35	9472	16248	409	376	480	674
65	22.3	24.9	61	10	23	32	9308	15138	386	363	469	654
60	22.1 (III)	24.6	60	10	21	29	9203	14380	364	351	459	641
55	21.8	24.3	58	10	20	25	9103	13368	343	340	450	633
50	21.5 (V)	24.0	56	9	18	22	8988	12787	328	331	440	626
45	21.3 (II)(V)	23.7	54	9	17	16	8861	12337	310	323	435	615
40	20.9 (I)	23.3	52	9	16	12	8742	11585	291	314	426	604
35	20.6	23.1	50	8	14	10	8613	11165	280	307	420	592
30	20.2	22.6	48	8	13	7	8461	10561	261	298	412	582
25	19.8	22.2	45	7	11	4	8291	9984	248	285	404	573
20	19.4	21.7	43	7	9	0	8142	9334	235	270	393	561
15	18.8	21.0	41	7	6	0	7901	8794	220	251	380	545
10	18.1	20.0	37	6	0	0	7309	8062	203	216	357	516
5	16.6	18.0	28	5	0	0	6394	7114	173	166	292	410
MEAN	21.5	23.8	56.0	9.6	19.3	23.2	8907	15466	372	326	451	639
STANDARD DEVIATION	3.2	3.4	18.3	3.5	12.9	19.9	1324	12544	197	86	93	139
NUMBER OF DISTRICTS	612	612	612	590	612	612	607	611	611	603	610	611

BASED ON DISTRICT DATA

NORMS — MICHIGAN

STUDENT BACKGROUND		SCHOOL/STUDENT PERFORMANCE									SCHOOL OR DISTRICT SIZE	
		ATTITUDE MEASURES (DISTRICT MEANS)			BASIC SKILLS MEASURES (DISTRICT MEANS)					DROPOUT RATE		
(13) PERCENT OF RACIAL-ETHNIC MINORITY STUDENTS	(14) STUDENTS' ESTIMATE OF SOCIO-ECONOMIC STATUS (DISTRICT MEANS)	(15) IMPORTANCE OF SCHOOL ACHIEVEMENT	(16) SELF PERCEPTION	(17) ATTITUDE TOWARD SCHOOL	(18) VOCABULARY	(19) READING	(20) MECHANICS OF WRITTEN ENGLISH	(21) MATHEMATICS	(22) BASIC SKILLS COMPOSITE ACHIEVEMENT	(23) SCHOOL DROPOUT RATE (1968-69)	(25) DISTRICT STATE AID MEMBERSHIP	
22	54.3	52.1	52.5	53.5	55.6	55.4	56.0	56.4	55.7	10.2	10847	95
10	52.9	51.4	51.7	52.5	54.1	54.2	54.1	54.4	54.2	8.4	6720	90
7	52.2	51.0	51.2	51.9	53.3	53.7	53.4	53.8	53.5	7.5	5134	85
5	51.6	50.7	50.9	51.5	52.7	53.1	52.8	53.2	52.9	7.0	4115	80
3	51.2	50.5	50.7	51.3	52.2	52.8	52.4	52.8	52.6	6.6	3427	75
3	50.7	50.3	50.5	51.0	51.8	52.5	52.0	52.4	52.2	6.3	2784	70
2	50.4	50.0	50.3	50.8	51.4	52.2	51.6	52.0	51.9	5.9	2390	65
2	50.2	49.9	50.0	50.6	51.2	51.9	51.3	51.7	51.6	5.6	2106	60
1	49.8	49.6	49.8	50.3	50.8	51.6	51.1	51.4	51.3	5.2	1913	55
1	49.6	49.4	49.7	50.1	50.5	51.3	50.8	51.1	51.0	4.9	1694	50
1	49.3	49.1	49.5	49.9	50.3	51.0	50.4	50.7	50.8	4.4	1458	45
1	49.0	48.9	49.4	49.7	49.9	50.7	50.1	50.4	50.5	4.2	1252	40
1	48.6	48.7	49.1	49.5	49.7	50.3	49.7	50.1	50.1	3.8	1108	35
1	48.3	48.5	48.9	49.2	49.5	49.9	49.4	49.7	49.8	3.5	863	30
0	48.0	48.2	48.7	49.0	49.2	49.7	49.1	49.3	49.5	3.2	696	25
0	47.6	47.9	48.3	48.6	48.8	49.1	48.8	48.8	49.1	2.8	520	20
0	47.1	47.4	48.0	48.1	48.1	48.5	48.2	48.4	48.5	2.4	292	15
0	46.4	46.6	47.5	47.6	47.1	47.7	47.4	47.6	47.8	2.0	132	10
0	45.0	45.5	46.7	46.5	46.4	46.6	46.3	46.3	46.7	1.3	36	5
4.5	49.6	49.2	49.6	50.0	50.7	51.1	50.7	51.1	51.0	5.1	3541	MEAN
10.4	2.8	2.2	2.0	2.2	2.8	2.7	2.9	2.9	2.7	2.8	12696	STANDARD DEVIATION
612	574	574	574	574	577	577	577	577	577	507	611	NUMBER OF DISTRICTS

PERCENTILE DISTRIBUTION

3. These scores were plotted onto the statewide pupil/professional instructional staff ratio distribution (see Example 1, page 24). Thus the mean score for each of the community types was plotted onto the distribution. The average score for the districts in community type I, 20.8, fell at about the 38th percentile of the state-wide distribution, the average score for community type II, 21.1, fell at about the 42nd percentile, and so on. The mean scores for each community type are represented by the circles containing the community type number, e.g., community type I - ①, community type II - ⑪, and so on.

The remaining columns in the example profile may be read similarly. In the composite achievement column (22), it can be seen that districts in community type I had an average district score which fell below the tenth percentile on the statewide distribution while districts in community type IV had a mean district score which fell at about the 55th percentile.

Section III contains education profiles constructed similarly to the profile in Example 1. The profiles presented in Sections IV and V are essentially the same except that they are based on school or pupil norms. They may be read in a similar manner. A summary of each profile is provided to help with interpretation of the data.

Figure 2 presents an illustration of the differing levels of performance as defined for use in this report. It should be noted that these levels have been arbitrarily defined and will be used throughout the report for the purpose of consistency. In each summary of the education profiles: (1) "high" refers to the percentile range at or above 62.5, (2) "above the median" refers to the percentile range from 52.5 to below 62.5, (3) "at the median" refers to the percentile range from 47.5 to below 52.5, (4) "below the median" refers

to the percentile range from 37.5 to below 47.5, and (5) "low" refers to any score falling below 37.5.

FIGURE 2. ILLUSTRATION

GRADE 4 DISTRICT

	SCHOOL RESOURCES											
	HUMAN RESOURCES							SCHOOL FINANCIAL RESOURCES				
	(1) PUPIL PROF. INSTRUCTIONAL STAFF RATIO	(2) PUPIL TEACHER RATIO	(3) PERCENT TEACHERS WITH 5 OR MORE YEARS EXPERIENCE	(4) AVERAGE YEARS TEACHING EXPERIENCE	(5) PERCENT TEACHERS WITH MASTERS DEGREE	(6) PERCENT TEACHERS EARNING $11,000 OR MORE	(7) AVERAGE SALARY OF TEACHERS (1969-70)	(8) STATE EQUALIZED VALUATION PER RESIDENT PUPIL (1969-70)	(9) LOCAL REVENUE PER PUPIL (69-70)	(10) STATE SCHOOL AID PER PUPIL (69-70)	(11) K-12 INSTRUCTIONAL EXPENSE PER PUPIL (1969-70)	(12) TOTAL CURRENT OPERATING EXPENSE PER PUPIL (1969-70)
HIGH	26.0	28.0	100	14	43	57	10846	31790	756	444	605	893
	24.7	27.0	75	13	36	52	10306	23845	606	425	571	802
	23.9	26.6	71	12	33	47	9996	21514	503	411	537	758
	23.5	26.1	68	12	29	43	9785	19092	470	398	512	718
	23.1	25.7	65	11	26	39	9626	17412	432	389	494	695
	22.7	25.3	63	11	25	35	9472	16248	409	376	480	674
	22.3	24.9	61	10	23	32	9308	15138	386	363	469	654
ABOVE THE MEDIAN	22.1	24.6	60	10	21	29	9203	14380	364	351	459	641
	21.8	24.3	58	10	20	25	9103	13368	343	340	450	633
MEDIAN	21.5	24.0	56	9	18	22	8988	12787	328	331	440	626
BELOW THE MEDIAN	21.3	23.7	54	9	17	16	8861	12337	310	323	435	615
	20.9	23.3	52	9	16	12	8742	11585	291	314	426	604
LOW	20.6	23.1	50	8	14	10	8613	11165	280	307	420	592
	20.2	22.6	48	8	13	7	8461	10561	261	298	412	582
	19.8	22.2	45	7	11	4	8291	9984	248	285	404	573
	19.4	21.7	43	7	9	0	8142	9334	235	270	393	561
	18.8	21.0	41	7	6	0	7901	8794	220	251	380	545
	18.1	20.0	37	6	0	0	7309	8062	203	216	357	516
	16.6	18.0	28	5	0	0	6394	7114	173	166	292	410
MEAN	21.5	23.8	56.0	9.6	19.3	23.2	8907	15466	372	326	451	639
STANDARD DEVIATION	3.2	3.4	18.3	3.5	12.9	19.9	1324	12544	197	86	93	139
NUMBER OF DISTRICTS	612	612	612	590	612	612	607	611	611	603	610	611

OF LEVELS

NORMS — MICHIGAN

STUDENT BACKGROUND		SCHOOL/STUDENT PERFORMANCE									SCHOOL OR DISTRICT SIZE	
		ATTITUDE MEASURES (DISTRICT MEANS)			BASIC SKILLS MEASURES (DISTRICT MEANS)					DROPOUT RATE		
(13) PERCENT OF RACIAL-ETHNIC MINORITY STUDENTS	(14) STUDENTS' ESTIMATE OF SOCIO-ECONOMIC STATUS (DISTRICT MEANS)	(15) IMPORTANCE OF SCHOOL ACHIEVEMENT	(16) SELF PERCEPTION	(17) ATTITUDE TOWARD SCHOOL	(18) VOCABULARY	(19) READING	(20) MECHANICS OF WRITTEN ENGLISH	(21) MATHEMATICS	(22) BASIC SKILLS COMPOSITE ACHIEVEMENT	(23) SCHOOL DROPOUT RATE (1988-89)	(25) DISTRICT STATE AID MEMBERSHIP	
22	54.3	52.1	52.5	53.5	55.6	55.4	56.0	56.4	55.7	10.2	10847	95
10	52.9	51.4	51.7	52.5	54.1	54.2	54.1	54.4	54.2	8.4	6720	90
7	52.2	51.0	51.2	51.9	53.3	53.7	53.4	53.8	53.5	7.5	5134	85
5	51.6	50.7	50.9	51.5	52.7	53.1	52.8	53.2	52.9	7.0	4115	80
3	51.2	50.5	50.7	51.3	52.2	52.8	52.4	52.8	52.6	6.6	3427	75
3	50.7	50.3	50.5	51.0	51.8	52.5	52.0	52.4	52.2	6.3	2784	70
2	50.4	50.0	50.3	50.8	51.4	52.2	51.6	52.0	51.9	5.9	2390	65
2	50.2	49.9	50.0	50.6	51.2	51.9	51.3	51.7	51.6	5.6	2106	60
1	49.8	49.6	49.8	50.3	50.8	51.6	51.1	51.4	51.3	5.2	1913	55
1	49.6	49.4	49.7	50.1	50.5	51.3	50.8	51.1	51.0	4.9	1694	50
1	49.3	49.1	49.5	49.9	50.3	51.0	50.4	50.7	50.8	4.4	1458	45
1	49.0	48.9	49.4	49.7	49.9	50.7	50.1	50.4	50.5	4.2	1252	40
1	48.6	48.7	49.1	49.5	49.7	50.3	49.7	50.1	50.1	3.8	1108	35
1	48.3	48.5	48.9	49.2	49.5	49.9	49.4	49.7	49.8	3.5	863	30
0	48.0	48.2	48.7	49.0	49.2	49.7	49.1	49.3	49.5	3.2	696	25
0	47.6	47.9	48.3	48.6	48.8	49.1	48.8	48.8	49.1	2.8	520	20
0	47.1	47.4	48.0	48.1	48.1	48.5	48.2	48.4	48.5	2.4	292	15
0	46.4	46.6	47.5	47.6	47.1	47.7	47.4	47.6	47.8	2.0	132	10
0	45.0	45.5	46.7	46.5	46.4	46.6	46.3	46.3	46.7	1.3	36	5
4.5	49.6	49.2	49.6	50.0	50.7	51.1	50.7	51.1	51.0	5.1	3541	MEAN
10.4	2.8	2.2	2.0	2.2	2.8	2.7	2.9	2.9	2.7	2.8	12696	STANDARD DEVIATION
612	574	574	574	574	577	577	577	577	577	507	611	NUMBER OF DISTRICTS

PERCENTILE DISTRIBUTION

SECTION IV

EDUCATION PROFILES CONSTRUCTED FROM DISTRICT LEVEL SCORES

It is the purpose of this section to present education profiles which were derived from district-level scores on the educational assessment measures. This section contains two education profiles: Profile I presents fourth grade district-level scores; Profile II presents seventh grade district-level scores. Tables 1 and 2 summarize the data contained in the education profiles.

The reader is reminded that: "high" (++) refers to the percentile range at or above 62.5; "above the median" (+) refers to the percentile range from 52.5 to below 62.5; "at the median" (0) refers to the percentile range from 47.5 to below 52.5; "below the median" (-) refers to the percentile range from 37.5 to below 47.5; and "low" (--) refers to any score falling below 37.5.

PROFILE 1. LEVELS OF COMMUNITY TYPES,

GRADE 4 DISTRICT

PERCENTILE DISTRIBUTION	SCHOOL RESOURCES											
	HUMAN RESOURCES							SCHOOL FINANCIAL RESOURCES				
	(1) PUPIL PROF. INSTRUCTIONAL STAFF RATIO *	(2) PUPIL-TEACHER RATIO *	(3) PERCENT TEACHERS WITH 5 OR MORE YEARS EXPERIENCE	(4) AVERAGE YEARS TEACHING EXPERIENCE	(5) PERCENT TEACHERS WITH MASTERS DEGREE	(6) PERCENT TEACHERS EARNING $11,000 OR MORE	(7) AVERAGE SALARY OF TEACHERS (1969-70)	(8) STATE EQUALIZED VALUATION PER RESIDENT PUPIL (1969-70)	(9) LOCAL REVENUE PER PUPIL (69-70)	(10) STATE SCHOOL AID PER PUPIL (69-70)	(11) K-12 INSTRUCTIONAL EXPENSE PER PUPIL (1969-70)	(12) TOTAL CURRENT OPERATING EXPENSE PER PUPIL (1969-70)
95	26.0	28.0	100	14	43	57	10846	31790	756	444	605	893
90	24.7	27.0	75	13	36	52	10306	23845	606	425	571	802
85	23.9	26.6	71	12	33	47	9996	21514	503	411	537	758
80	23.5	26.1	68	12	29	43	9785	19092	470	398	512	718
75	23.1	25.7	65	11	26	39	9626	17412	432	389	494	695
70	22.7	25.3	63	11	25	35	9472	16248	409	376	480	674
65	22.3	24.9	61	10	23	32	9308	15138	386	363	469	654
60	22.1	24.6	60	10	21	29	9203	14380	364	351	459	641
55	21.8	24.3	58	10	20	25	9103	13368	343	340	450	633
50	21.5	24.0	56	9	18	22	8988	12787	328	331	440	626
45	21.3	23.7	54	9	17	16	8861	12337	310	323	435	615
40	20.9	23.3	52	9	16	12	8742	11585	291	314	426	604
35	20.6	23.1	50	8	14	10	8613	11165	280	307	420	592
30	20.2	22.6	48	8	13	7	8461	10561	261	298	412	582
25	19.8	22.2	45	7	11	4	8291	9984	248	285	404	573
20	19.4	21.7	43	7	9	0	8142	9334	235	270	393	561
15	18.8	21.0	41	7	6	0	7901	8794	220	251	380	545
10	18.1	20.0	37	6	0	0	7309	8062	203	216	357	516
5	16.6	18.0	28	5	0	0	6394	7114	173	166	292	410
MEAN	21.5	23.8	56.0	9.6	19.3	23.2	8907	15466	372	326	451	639
STANDARD DEVIATION	3.2	3.4	18.3	3.5	12.9	19.9	1324	12544	197	86	93	139
NUMBER OF DISTRICTS	612	612	612	590	612	612	607	611	611	603	610	611

* High pupil/teacher ratios and high pupil/professional instructional staff ratios are considered by many educators to be unfavorable in terms of educational outcomes.

GRADE 4, DISTRICT DATA

NORMS — MICHIGAN

STUDENT BACKGROUND		SCHOOL/STUDENT PERFORMANCE									SCHOOL OR DISTRICT SIZE	
		ATTITUDE MEASURES (DISTRICT MEANS)			BASIC SKILLS MEASURES (DISTRICT MEANS)					DROPOUT RATE		
(13) PERCENT OF RACIAL-ETHNIC MINORITY STUDENTS	(14) STUDENTS' ESTIMATE OF SOCIO ECONOMIC STATUS (DISTRICT MEANS)	(15) IMPORTANCE OF SCHOOL ACHIEVEMENT	(16) SELF PERCEPTION	(17) ATTITUDE TOWARD SCHOOL	(18) VOCABULARY	(19) READING	(20) MECHANICS OF WRITTEN ENGLISH	(21) MATHEMATICS	(22) BASIC SKILLS COMPOSITE ACHIEVEMENT	(23) SCHOOL DROPOUT RATE (1988-89)	(25) DISTRICT STATE AID MEMBERSHIP	
22 (I)	54.3	52.1	52.5	53.5	55.6	55.4	56.0	56.4	55.7	10.2 (I)	10847 (I)	95
10 (II)	52.9	51.4	51.7	52.5	54.1	54.2	54.1	54.4	54.2	8.4	6720 (II) (IV)	90
7	52.2	51.0	51.2	51.9	53.3	53.7	53.4	53.8	53.5	7.5	5134	85
5 (IV)	51.6	50.7	50.9	51.5	52.7	53.1	52.8	53.2	52.9	7.0	4115	80
3 (V)	51.2 (IV)	50.5 (I)	50.7	51.3	52.2	52.8	52.4	52.8	52.6	6.6	3427	75
3 (III)	50.7	50.3	50.5	51.0	51.8 (II)	52.5	52.0	52.4	52.2	6.3	2784 (III)	70
2	50.4	50.0 (IV)	50.3	50.8	51.4 (III)	52.2	51.6	52.0	51.9	5.9	2390	65
2	50.2 (II) (II)	49.9	50.0 (IV) (I)	50.6 (II)	51.2 (IV)	51.9 (II)	51.3 (III) (II) (IV)	51.7 (III) (II)	51.6 (III) (II)	5.6 (II)	2106	60
1	49.8	49.6	49.8 (II)	50.3 (III)	50.8	51.6 (II)	51.1	51.4 (IV)	51.3 (IV)	5.2 (IV)	1913	55
1	49.6	49.4 (II)	49.7 (III)	50.1 (V) (IV)	50.5	51.3 (IV)	50.8	51.1 (V)	51.0	4.9 (III) (V)	1694	50
1	49.3	49.1 (III)	49.5	49.9 (I)	50.3 (V)	51.0 (V)	50.4 (V)	50.7	50.8 (V)	4.4	1458	45
1	49.0 (V)	48.9 (V)	49.4 (V)	49.7	49.9	50.7	50.1	50.4	50.5	4.2	1252	40
1	48.6	48.7	49.1	49.5	49.7	50.3	49.7	50.1	50.1	3.8	1108 (V)	35
1	48.3	48.5	48.9	49.2	49.5	49.9	49.4	49.7	49.8	3.5	863	30
0	48.0	48.2	48.7	49.0	49.2	49.7	49.1	49.3	49.5	3.2	696	25
0	47.6	47.9	48.3	48.6	48.8	49.1	48.8	48.8	49.1	2.8	520	20
0	47.1 (I)	47.4	48.0	48.1	48.1 (I)	48.5	48.2	48.4	48.5	2.4	292	15
0	46.4	46.6	47.5	47.6	47.1	47.7 (I)	47.4 (I)	47.6 (I)	47.8 (I)	2.0	132	10
0	45.0	45.5	46.7	46.5	46.4	46.6	46.3	46.3	46.7	1.3	36	5
4.5	49.6	49.2	49.6	50.0	50.7	51.1	50.7	51.1	51.0	5.1	3541	MEAN
10.4	2.8	2.2	2.0	2.2	2.8	2.7	2.9	2.9	2.7	2.8	12696	STANDARD DEVIATION
612	574	574	574	574	577	577	577	577	577	507	611	NUMBER OF DISTRICTS

PERCENTILE DISTRIBUTION

PROFILE 2. LEVELS OF COMMUNITY TYPES,

GRADE 7 DISTRICT

PERCENTILE DISTRIBUTION	SCHOOL RESOURCES											
	HUMAN RESOURCES							SCHOOL FINANCIAL RESOURCES				
	(1) PUPIL PROF. INSTRUC-TIONAL STAFF RATIO *	(2) PUPIL TEACHER RATIO *	(3) PERCENT TEACHERS WITH 9 OR MORE YEARS EXPERI-ENCE	(4) AVERAGE YEARS TEACHING EXPERI-ENCE	(5) PERCENT TEACHERS WITH MASTERS DEGREE	(6) PERCENT TEACHERS EARNING $11,000 OR MORE	(7) AVERAGE SALARY OF TEACHERS (1969-70)	(8) STATE EQUALIZED VALUATION PER RESIDENT PUPIL (1969-70)	(9) LOCAL REVE-NUE PER PUPIL (69-70)	(10) STATE SCHOOL AID PER PUPIL (69-70)	(11) K-12 INSTRUC-TIONAL EXPENSE PER PUPIL (1969-70)	(12) TOTAL CURRENT OPER-ATING EXPENSE PER PUPIL (1969-70)
95	25.8	28.0	81	14	43	57	10859	30860	726	444	606	893
90	24.6	27.0	73	13	36	52	10351	23730	589	425	573	803
85	23.9	26.6	70	12	33	48	10025	21440	499	412	541	759
80	23.4	26.1	67	12	30	43	9824	19120	468	399	514	720
75	23.1	25.7	65	11	27	40	9653	17433	431	390	496	698
70	22.7	25.3	63	11	25	36	9502	16252	407	378	482	676
65	22.4	25.0	61	10	23	33	9349	15120	385	365	471	656
60	22.1	24.7	59	10	22	30	9243	14320	362	354	461	644
55	21.8	24.3	57	10	20	26	9140	13340	341	342	453	635
50	21.6	24.1	56	9	19	23	9030	12800	328	333	443	628
45	21.3	23.8	54	9	18	18	8922	12348	310	325	436	619
40	21.0	23.5	52	9	16	14	8790	11590	291	315	430	607
35	20.6	23.2	50	8	15	11	8691	11172	280	309	424	598
30	20.4	22.8	48	8	14	9	8557	10560	263	301	416	587
25	20.0	22.4	46	8	13	6	8387	9993	249	288	408	578
20	19.6	21.9	43	7	11	2	8242	9351	236	274	400	568
15	19.0	21.3	41	7	7	0	8056	8810	221	256	388	554
10	18.3	20.4	39	6	4	0	7704	8088	203	223	373	535
5	17.1	18.8	32	5	0	0	7002	7180	173	172	319	489
MEAN	21.5	23.9	56.0	9.6	20.1	24.2	9008	15180	369	329	458	648
STANDARD DEVIATION	3.0	3.2	15.9	3.2	12.6	19.7	1238	8752	202	83	99	146
NUMBER OF DISTRICTS	585	585	585	572	585	585	582	584	584	582	584	584

* High pupil/teacher ratios and high pupil/professional instructional staff ratios are considered by many educators to be unfavorable in terms of educational outcomes.

GRADE 7, DISTRICT DATA

NORMS

MICHIGAN

STUDENT BACKGROUND		SCHOOL/STUDENT PERFORMANCE									SCHOOL OR DISTRICT SIZE	
		ATTITUDE MEASURES (DISTRICT MEANS)			BASIC SKILLS MEASURES (DISTRICT MEANS)					DROPOUT RATE		
(13) PERCENT OF RACIAL-ETHNIC MINORITY STUDENTS	(14) STUDENTS' ESTIMATE OF SOCIO-ECONOMIC STATUS (DISTRICT MEANS)	(15) IMPORTANCE OF SCHOOL ACHIEVEMENT	(16) SELF PERCEPTION	(17) ATTITUDE TOWARD SCHOOL	(18) VOCABULARY	(19) READING	(21) MECHANICS OF WRITTEN ENGLISH	(21) MATHEMATICS	(22) BASIC SKILLS COMPOSITE ACHIEVEMENT	(23) SCHOOL DROPOUT RATE (1988-89)	(25) DISTRICT STATE AID MEMBERSHIP	PERCENTILE DISTRIBUTION
20 (I)	54.8	52.6	52.3	54.0	54.8	54.7	54.9	55.9	54.9	10.2 (I)	11265 (I)	95
10	53.1	51.6	51.6	53.0	53.8	53.8	53.9	54.5	54.1	8.4	7005 (II) (IV)	90
7 (II)	52.4	51.1	51.3	52.5	53.1	53.3	53.2	53.9	53.3	7.5	5295	85
5 (IV)	52.0	50.8 (I)	50.9	52.1	52.5	52.8	52.6	53.3	52.7	7.0	4235	80
4	51.6	50.6	50.7	51.7	52.1	52.4	52.1	52.8	52.4	6.6	3475	75
3 (V) (III)	51.4	50.3	50.5	51.4 (IV)	51.6	52.1	51.8	52.4	52.0	6.3	2940 (III)	70
2 (IV)	51.1	50.1 (IV)	50.2	51.0	51.4 (V) (II)	51.7 (III)	51.5 (III)	52.1 (III)	51.8 (III)	5.9	2494	65
2	50.7 (III)	49.8	50.0 (III)	50.7 (V)	51.1 (II)	51.4 (V)	51.3	51.8 (II)	51.5	5.6 (II)	2180	60
2	50.3	49.7 (II)	49.8 (II)	50.5	50.8	51.2 (II)	50.9 (II) (V)	51.5	51.3 (II) (V)	5.2 (V)	1984	55
1	50.1 (II)	49.5	49.6 (I)	50.3 (II) (III)	50.5	51.0	50.6	51.2 (IV)	51.0	4.9 (II) (V)	1817	50
1	49.8	49.2 (II)	49.4	50.0	50.3	50.8	50.3 (V)	51.0 (V)	50.8 (V)	4.4	1566	45
1	49.5 (V)	49.0 (V)	49.2	49.8 (IV)	50.0 (V)	50.6 (V)	50.0	50.7	50.4	4.2	1390	40
1	49.1	48.8	48.9 (V)	49.5	49.8	50.2	49.7	50.4	50.1	3.8	1190 (V)	35
1	48.8	48.6	48.7	49.3	49.4	49.9	49.4	50.1	49.8	3.5	1046	30
1	48.5	48.3	48.4	49.0	49.0	49.5	49.0	49.8	49.5	3.2	815	25
0	48.1	48.0	48.0	48.8	48.7	49.2	48.7	49.2	49.2	2.8	646	20
0	47.7	47.6	47.7	48.3	48.2	48.8	48.2	48.6	48.8	2.4	461	15
0	47.0 (I)	47.1	47.2	47.8	47.5 (I)	48.3 (I)	47.6 (I)	48.0 (I)	48.2 (I)	2.0	237	10
0	45.7	46.3	46.2	46.9	46.2	47.0	46.4	46.5	47.0	1.3	85	5
4.5	50.1	49.4	49.5	50.4	50.5	50.9	50.7	51.2	51.0	5.1	3701	MEAN
10.1	2.8	2.1	1.9	2.1	2.6	2.4	2.7	2.9	2.5	2.8	12963	STANDARD DEVIATION
585	559	559	559	559	562	562	562	562	562	507	584	NUMBER OF DISTRICTS

TABLE 1

SUMMARY - GRADE 4 - DISTRICT NORMS

Assessment Measure	Community Type[2] I	II	III	IV	V
Human Resources					
Pupil/Prof. Instructional Staff Ratio	-	-	+	-	0
Pupil/Teacher Ratio	+	0	++	0	-
% Teachers with 5 or More Years Experience	++	++	+	-	0
Average Years Teaching Experience	++	++	+	--	+
% Teachers with Masters Degree	++	++	++	++	--
% Teachers Earning $11,000 or more	++	++	++	++	-
Average Salary of Teachers	++	++	++	++	--
School Financial Resources					
State Equalized Valuation per Pupil	++	++	+	++	++
Local Revenue per Pupil	++	++	+	++	+
State School Aid per Pupil	--	--	0	-	0
K-12 Instructional Expense per Pupil	++	++	+	++	--
Total Current Operating Expense per Pupil	++	++	+	++	-
Student Background					
% Racial-Ethnic Minority Students[3]	++	++	++	++	++
Students' Estimate of Socioeconomic Status	--	++	+	++	-
Attitude Measures					
Importance of School Achievement	++	+	-	++	-
Self-Perception	+	+	0	++	-
Attitude Toward School	-	+	+	0	0
Basic Skills Measures					
Vocabulary	--	++	++	++	-
Reading	--	+	+	0	-
Mechanics of Written English	--	++	++	+	-
Mathematics	--	+	+	+	0
Basic Skills Composite Achievement	--	+	+	+	-
Dropout Rate					
School Dropout Rate	++	+	0	+	0
District Size					
District State-Aid Membership	++	++	++	++	--

[2] I - Metropolitan Core Cities II - Cities III - Towns
IV - Urban Fringe V - Rural

[3] Note that while a district with 15 percent minority students would be thought of as having a low percentage of minority students in the ordinary sense, it has a high percentile rank on Percent of Racial-Ethnic Minority Students. Its percentage of racial-ethnic minority students is high compared to the percentages of other districts.

TABLE 2

SUMMARY - GRADE 7 - DISTRICT NORMS

Assessment Measures	Community Type[4] I	II	III	IV	V
Human Resources					
Pupil/Prof. Instructional Staff Ratio	-	-	+	-	0
Pupil/Teacher Ratio	+	0	+	0	-
% Teachers with 5 or More Years Experience	++	++	+	-	0
Average Years Teaching Experience	++	++	+	--	+
% Teachers with Masters Degree	++	++	++	++	--
% Teachers Earning $11,000 or more	++	++	++	++	-
Average Salary of Teachers	++	++	+	++	--
School Financial Resources					
State Equalized Valuation per Pupil	++	++	+	++	+
Local Revenue per Pupil	++	++	+	++	+
State School Aid per Pupil	--	--	0	--	+
K-12 Instructional Expense per Pupil	++	++	+	++	--
Total Current Operating Expense per Pupil	++	++	+	++	-
Student Background					
% Racial-Ethnic Minority Students[5]	++	++	++	++	++
Students' Estimate of Socioeconomic Status	--	0	+	++	-
Attitude Measures					
Importance of School Achievement	++	+	-	++	-
Self-Perception	0	+	+	++	-
Attitude Toward School	0	0	0	-	+
Basic Skills Measures					
Vocabulary	--	++	+	++	-
Reading	--	+	++	+	-
Mechanics of Written English	--	+	++	+	0
Mathematics	--	+	++	+	0
Basic Skills Composite Achievement	--	+	++	+	-
Dropout Rate					
School Dropout Rate	++	+	0	+	0
District Size					
District State-Aid Membership	++	++	++	++	--

[4] I - Metropolitan Core Cities II - Cities III - Towns
IV - Urban Fringe V - Rural

[5] Note that while a district with 15 percent minority students would be thought of as having a low percentage of minority students in the ordinary sense, it has a high percentile rank on Percent of Racial-Ethnic Minority Students. Its percentage of racial-ethnic minority students is high compared to the percentages of other districts.

SECTION V

EDUCATION PROFILES CONSTRUCTED FROM SCHOOL LEVEL SCORES

It is the purpose of this section to present education profiles which were derived from school-level scores on the educational assessment program. Profile III presents fourth grade school-level scores; Profile IV presents seventh grade school-level scores. Two additional tables are presented which summarize the data contained in the education profiles.

The reader is reminded that: "high" (++) refers to the percentile range at or above 62.5; "above the median" (+) refers to the percentile range from 52.5 to below 62.5; "at the median" (0) refers to the percentile range from 47.5 to below the 52.5; " below the median" (-) refers to the percentile range from 37.5 to below 47.5; and "low" (--) refers to any score falling below 37.5.

PROFILE 3. LEVELS OF COMMUNITY TYPES, GRADE 4, SCHOOL DATA

GRADE 4 — SCHOOL NORMS — MICHIGAN

PERCENTILE DISTRIBUTION	SCHOOL RESOURCES: HUMAN RESOURCES (1) PUPIL PROF INSTRUCTIONAL STAFF RATIO	(2) PUPIL-TEACHER RATIO	(3) PERCENT TEACHERS WITH 5 OR MORE YEARS EXPERIENCE	(4) PERCENT TEACHERS WITH MASTERS DEGREE	(5) PERCENT TEACHERS EARNING $11,200 OR MORE	STUDENT BACKGROUND (13) PERCENT RACIAL-ETHNIC MINORITY STUDENTS	(14) STUDENTS' ESTIMATE OF SOCIO ECONOMIC STATUS (SCHOOL MEANS)	SCHOOL/STUDENT PERFORMANCE: ATTITUDE MEASURES (SCHOOL MEANS) (15) IMPORTANCE OF SCHOOL ACHIEVEMENT	(16) SELF PERCEPTION	(17) ATTITUDE TOWARD SCHOOL	BASIC SKILLS MEASURES (SCHOOL MEANS) (18) VOCABULARY	(19) READING	(20) MECHANICS OF WRITTEN ENGLISH	(21) MATHEMATICS	(22) BASIC SKILLS COMPOSITE ACHIEVEMENT	SCHOOL OR DISTRICT SIZE (24) NUMBER OF STUDENTS IN SCHOOL
95	28.8	31.3	94	50	79	95	58.0	53.8	53.8	53.9	56.9	56.1	56.4	56.9	56.4	712
90	27.7	30.1	85	41	71	41 (I)	55.5	52.8	52.9	53.1	55.3	55.0	55.2	55.4	55.0	602
85	26.8	29.4	80	37	65	18	54.1	52.3	52.2	52.5	54.3	54.2	54.3	54.5	54.2	539
80	26.2	28.8	76	33	60	10 (II)	53.1	51.9	51.8	52.0	53.5	53.6	53.6	53.9	53.6	500
75	25.[illegible]	28.2	73	30	56	6	52.4	51.5	51.4	51.6	52.9	53.1	53.0	53.3	53.1	468 (I)
70	25.1	27.8	70	28 (I)	53 (I)	4 (IV)	51.7 (IV)	51.2	51.1	51.3	52.2	52.7	52.5	52.7	52.6	441
65	24.6	27.3 (I)	67 (II)	25 (IV)	50	3 (IV) (III)	51.3	50.9 (I)	50.8	51.0	51.8 (IV)	52.2	52.0	52.2	52.1	416
60	24.2	26.8	65	23 (II)	46 (IV)	3	50.7	50.6	50.4 (IV)	50.8	51.3 (III)	51.8 (IV) (III)	51.5 (IV)	51.8 (IV) (III)	51.7 (IV) (II)	390 (IV)
55	23.8 (III) (V)	26.5 (III)	62 (I)	20	43 (II)	2	50.3	50.2 (IV)	50.1 (I)	50.4 (II)	50.9	51.4 (II)	51.1 (III) (II)	51.3 (II)	51.3 (II)	367
50	23.3 (I) (II)	26.1	60 (V) (II)	18	39	2	49.9 (III) (II)	49.9	49.9 (II)	50.1 (III) (IV) (VI) (I)	50.5 (V)	51.0	50.6 (V)	50.9 (V)	50.8 (V)	345
45	22.7 (IV)	25.7 (IV)	57 (IV)	16 (II)	36	1	49.4 (V)	49.7 (II)	49.7 (III)	49.8	50.0	50.6	50.1	50.4	50.4	326 (II)
40	22.3	25.3 (V) (II)	55	15	32 (III)	1	48.9	49.3	49.4 (V)	49.5	49.6	50.1	49.7	50.0	49.9	306 (II)
35	21.8	24.9	52	13	28	1	48.4	49.1 (V) (II)	49.2	49.1	49.2	49.6	49.2	49.5	49.5	283 (V)
30	21.2	24.3	50	11 (V)	23	1	48.0	48.8	48.8	48.8	48.7	49.0	48.7	48.8	48.9	259
25	20.7	23.7	46	9	18 (V)	1	47.3 (I)	48.3	48.5	48.5	48.0	48.3	48.1	48.1	48.4	232
20	20.1	23.0	43	7	13	0	46.5	47.9	48.1	48.0	47.2 (I)	47.5 (I)	47.3 (I)	47.3 (I)	47.6 (I)	202
15	19.2	22.2	38	0	6	0	45.6	47.5	47.7	47.5	46.1	46.2	46.1	46.0	46.3	169
10	18.2	21.1	33	0	0	0	44.3	46.7	47.2	47.0	44.5	44.6	44.4	44.2	44.5	140
5	16.6	19.7	27	0	0	0	42.6	45.5	46.3	46.0	42.6	42.0	42.3	41.7	42.2	90
MEAN	23.1	25.9	59.5	20.5	38.2	12.0	49.9	49.9	50.0	50.0	50.3	50.4	50.3	50.4	50.4	368
STANDARD DEVIATION	4.0	3.9	20.3	15.4	25.0	25.7	4.5	2.5	2.3	2.5	4.1	4.1	4.1	4.4	4.1	206
NUMBER OF SCHOOLS	2524	2524	2529	2529	2529	2528	2427	2427	2427	2427	2492	2492	2492	2492	2492	2524

TABLE 3

SUMMARY - GRADE 4 - SCHOOL NORMS

Assessment Measure	Community Type[6] I	II	III	IV	V
Human Resources					
Pupil/Prof. Instructional Staff Ratio	0	0	+	-	+
Pupil/Teacher Ratio	+	-	+	-	-
% Teachers with 5 or More Years Experience	+	++	0	-	0
% Teachers with Masters Degree	++	+	-	++	--
% Teachers Earning $11,000 or More	++	+	-	+	--
Student Background					
% Racial-Ethnic Minority Students[7]	++	++	++	++	++
Students' Estimate of Socioeconomic Status	--	0	+	++	-
Attitude Measures					
Importance of School Achievement	++	-	--	+	--
Self-Perception	+	0	-	+	-
Attitude Toward School	-	+	+	0	-
Basic Skills Measures					
Vocabulary	--	+	+	++	0
Reading	--	+	+	+	0
Mechanics of Written English	--	+	+	+	0
Mathematics	--	+	+	+	0
Basic Skills Composite Achievement	--	+	+	+	0
School Size					
Number of Students in School	++	-	-	+	--

[6] I - Metropolitan Core Cities II - Cities III - Towns
IV - Urban Fringe V - Rural

[7] Note that while a district with 15 percent minority students would be thought of as having a low percentage of minority students in the ordinary sense, it has a high percentile rank on Percent of Racial-Ethnic Minority Students. Its percentage of racial-ethnic minority students is high compared to the percentages of other districts.

PROFILE 4. LEVELS OF COMMUNITY TYPES, GRADE 7, SCHOOL DATA

GRADE 7 — SCHOOL NORMS — MICHIGAN

PERCENTILE DISTRIBUTION	SCHOOL RESOURCES: HUMAN RESOURCES (1) PUPIL/PROF. INSTRUC-TIONAL STAFF RATIO	(2) PUPIL/TEACHER RATIO	(3) PERCENT TEACHERS WITH 3 OR MORE YEARS EXPERIENCE	(5) PERCENT TEACHERS WITH MASTERS DEGREE	(6) PERCENT TEACHERS EARNING $11,000 OR MORE	STUDENT BACKGROUND (12) PERCENT RACIAL-ETHNIC MINORITY STUDENTS	(14) STUDENTS' ESTIMATE OF SOCIO ECONOMIC STATUS (SCHOOL MEANS)	SCHOOL/STUDENT PERFORMANCE: ATTITUDE MEASURES (SCHOOL MEANS) (15) IMPORTANCE OF SCHOOL ACHIEVEMENT	(16) SELF PERCEPTION	(17) ATTITUDE TOWARD SCHOOL	BASIC SKILLS MEASURES (SCHOOL MEANS) (18) VOCABULARY	(19) READING	(20) MECHANICS OF WRITTEN ENGLISH	(21) MATHEMATICS	(22) BASIC SKILLS COMPOSITE ACHIEVEMENT	SCHOOL OR DISTRICT SIZE (24) NUMBER OF STUDENTS IN SCHOOL
95	27.9	30.9	87	53	71	86	55.8	53.0	52.8	53.9	55.2	55.2	55.4	56.3	55.3	1341
90	26.3	28.9	79	45	62	37 (I)	53.8	52.3	52.0	52.9	54.0	54.2	54.3	54.7	54.3	1149
85	25.2	27.6	72	40	57	19	52.8	51.8	51.5	52.4	53.3	53.5	53.4	54.0	53.6	1028
80	24.1	26.8	69	37	53 (I)	11 (II)	52.2	51.3	51.2	51.9	52.6	52.9	52.8	53.2	52.8	938
75	23.3	26.1	66	34	48	7	51.8 (IV)	51.0 (I)	50.9	51.5	52.2	52.4	52.2	52.7	52.4	862 (I)
70	22.8	25.5 (I)	63 (II)	32 (I) (II)	45	4 (IV)	51.5	50.7	50.6 (IV)	51.2	51.8 (IV)	52.1	51.8	52.3	52.0	796 (IV)
65	22.2 (I) (III)	25.0 (III)	61 (I)	30	41 (IV) (II)	3 (V) (III)	51.1	50.5	50.4	50.9	51.4	51.7 (IV) (III)	51.5 (III) (IV)	51.9 (III)	51.7 (III) (IV)	719 (III)
60	21.7	24.5	58 (III)	28	38	2	50.8	50.3	50.2 (II)	50.6 (V)	51.1 (III)	51.4	51.1	51.6 (IV)	51.4	670
55	21.2 (V)	24.0	56	26 (III)	34 (III)	2	50.4 (III)	50.1 (IV)	49.9 (III)	50.4	50.8 (II)	51.1 (II)	50.8 (II)	51.3 (II) (V)	51.1 (II)	617 (III)
50	20.9	23.6	54	24	31	2	50.1	49.8	49.7	50.2 (III)	50.5	50.9	50.4 (V)	50.9	50.8 (V)	579
45	20.5	23.2 (IV)	51 (V)	22	27	1	49.7 (III) (V)	49.6 (II)	49.5 (I)	49.9 (III) (IV)	50.1 (V)	50.6 (V)	50.1	50.5	50.4	530
40	20.1 (IV) (II)	22.8 (II)	50 (IV)	20	23	1	49.3	49.3 (V) (III)	49.2	49.6	49.8	50.2	49.8	50.2	50.1	485
35	19.8	22.5	47	18	19	1	48.9	49.1	48.9 (V)	49.4	49.3	49.9	49.4	49.9	49.7	442
30	19.4	22.1	44	16 (V)	15	1	48.3	48.8	48.7	49.1	48.9	49.4	49.0	49.2	49.3	396 (V)
25	18.9	21.6	41	15	11 (V)	0	47.9	48.6	48.5	48.8	48.3	48.9	48.3	48.7	49.0	357
20	18.4	21.0	38	12	6	0	47.3	48.2	48.1	48.5	47.7	48.4	47.7	47.8	48.1	306
15	17.8	20.4	35	9	0	0	46.3 (I)	47.8	47.8	48.2	46.5 (I)	47.2 (I)	46.9 (I)	46.5 (I)	47.1 (I)	249
10	17.0	19.3	31	5	0	0	45.0	47.3	47.3	47.6	44.4	45.3	45.2	43.8	44.9	174
5	15.7	17.8	25	0	0	0	42.7	46.4	46.3	46.9	41.5	42.5	42.5	40.5	42.1	95
MEAN	21.3	23.9	54.1	25.0	31.3	11.4	49.8	49.8	49.6	50.2	49.9	50.3	50.1	50.3	50.3	633
STANDARD DEVIATION	3.8	4.0	18.8	15.6	23.1	24.4	3.8	2.1	2.0	2.2	3.8	3.6	3.7	4.2	3.7	389
NUMBER OF SCHOOLS	902	902	906	906	906	906	849	849	849	849	880	880	880	880	880	902

SECTION VI

EDUCATION PROFILES CONSTRUCTED FROM PUPIL LEVEL SCORES

It is the purpose of this section to present education profiles which were derived from pupil-level scores on the educational assessment program. This section contains two education profiles: Profile V presents fourth grade pupil-level data; Profile VI presents seventh grade pupil-level data. Tables 5 and 6 summarize the data contained in the education profiles.

The reader is reminded that: "high" (++) refers to the percentile range at or above 62.5; "above the median" (+) refers to the percentile range from 52.5 to below 62.5; "at the median" (0) refers to the percentile range from 47.5 to below 52.5; "below the median" (-) refers to the percentile range from 37.5 to below 47.5; and "low" (--) refers to any score falling below 37.5.

PROFILE 5. LEVELS OF COMMUNITY TYPES, GRADE 4, PUPIL DATA

PUPIL NORMS

GRADE 4 — MICHIGAN

PERCENTILE DISTRIBUTION	STUDENT BACKGROUND	SCHOOL/STUDENT PERFORMANCE							
		ATTITUDE MEASURES (STANDARD SCORES)			BASIC SKILLS MEASURES (STANDARD SCORES)				
	STUDENTS' ESTIMATE OF SOCIO ECONOMIC STATUS (STANDARD SCORES)	IMPORTANCE OF SCHOOL ACHIEVEMENT	SELF PERCEPTION	ATTITUDE TOWARD SCHOOL	VOCABULARY	READING	MECHANICS OF WRITTEN ENGLISH	MATHEMATICS	BASIC SKILLS COMPOSITE ACHIEVEMENT
95	64	60	65	64	69	63	66	67	64
90	62	60	63	61	64	61	63	64	62
85	60	59	61	59	62	60	61	61	60
80	59	59	59	59	59	60	59	60	59
75	57	59	58	58	57	59	58	57	57
70	56	58	56	57	55	58	56	56	56
65	55	58	55	56	53	56	55	54	55
60	54	56	53	54	52	55	53	53	53
55	52	55	52	53	50	54	52	52	52
50	51	53	51	52	49	52	50	50	51
45	50	52	49	50	48	50	48	49	49
40	49	49	48	49	46	49	47	48	48
35	47	48	46	47	45	46	45	45	46
30	45	46	45	46	44	44	44	43	44
25	44	44	43	44	43	42	43	42	43
20	42	41	41	41	42	39	41	41	41
15	39	38	39	39	39	38	39	39	39
10	36	35	36	36	38	35	37	37	37
5	32	29	33	31	36	33	34	34	35
MEAN	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
STANDARD DEVIATION	10.0	10.0	10.0	10.0	10.0	10.0	9.9	10.0	9.2
NUMBER OF PUPILS	153216	153174	153154	153110	158637	158767	158659	158343	157245

PROFILE 6. LEVELS OF COMMUNITY TYPES, GRADE 7, PUPIL DATA

PUPIL NORMS

GRADE 7 — MICHIGAN

PERCENTILE DISTRIBUTION	STUDENT BACKGROUND	SCHOOL/STUDENT PERFORMANCE							
		ATTITUDE MEASURES (STANDARD SCORES)			BASIC SKILLS MEASURES (STANDARD SCORES)				
	STUDENTS' ESTIMATE OF SOCIO ECONOMIC STATUS (STANDARD SCORES)	IMPORTANCE OF SCHOOL ACHIEVEMENT	SELF PERCEPTION	ATTITUDE TOWARD SCHOOL	VOCABULARY	READING	MECHANICS OF WRITTEN ENGLISH	MATHEMATICS	BASIC SKILLS COMPOSITE ACHIEVEMENT
95	64	62	64	64	67	65	67	66	65
90	62	62	62	62	63	63	63	64	62
85	60	62	60	61	61	61	61	61	60
80	58	61	59	59	59	60	59	60	59
75	57	59	57	58	58	58	57	57	57
70	56	57	56	57	56	57	55	56	56
65	55	56	55	55	54	56	54	55	54
60	54	54	54	54	53	54	53	53	53
55	53	53	52	52	52	53	51	51	52
50	51	51	51	51	50	51	50	49	50
45	50	50	50	50	48	50	48	48	49
40	49	49	49	48	47	48	47	47	48
35	48	47	47	46	46	46	46	46	46
30	46	45	46	45	44	44	44	44	45
25	44	43	44	43	42	42	42	42	43
20	42	41	42	41	41	40	41	40	41
15	40	39	39	39	39	38	39	39	40
10	36	36	36	36	36	36	36	36	38
5	31	31	32	32	34	33	33	34	35
MEAN	50.0	50.0	50.0	50.0	50.0	50.2	49.8	50.0	50.1
STANDARD DEVIATION	10.0	10.0	10.0	10.0	10.0	10.0	10.1	10.0	9.1
NUMBER OF PUPILS	152125	152049	151992	151950	159193	159252	159245	158750	156923

TABLE 5

SUMMARY - GRADE 4 - PUPIL NORMS

Assessment Measure	Community Type[10] I	II	III	IV	V
Student Background					
Students' Estimate of Socioeconomic Status	--	-	-	+	-
Attitude Measures					
Importance of School Achievement	-	-	-	-	-
Self-Perception	0	0	-	0	-
Attitude Toward School	-	-	-	-	-
Basic Skills Measures					
Vocabulary	-	+	+	+	+
Reading	--	0	0	0	-
Mechanics of Written English	-	0	0	+	0
Mathematics	--	+	+	+	0
Basic Skills Composite Achievement	--	0	0	+	0

TABLE 6

SUMMARY - GRADE 7 - PUPIL NORMS

Assessment Measure	Community Type[10] I	II	III	IV	V
Student Background					
Students' Estimate of Socioeconomic Status	--	-	0	0	-
Attitude Measures					
Importance of School Achievement	0	-	-	-	-
Self-Perception	-	-	-	0	-
Attitude Toward School	-	-	-	-	-
Basic Skills Measures					
Vocabulary	--	+	+	+	0
Reading	--	0	0	0	0
Mechanics of Written English	--	+	+	+	0
Mathematics	0	+	+	+	+
Basic Skills Composite Achievement	--	+	+	+	0

[10] I - Metropolitan Core Cities II - Cities III - Towns
IV - Urban Fringe V - Rural

APPENDIX A

LISTING OF MICHIGAN SCHOOL DISTRICTS CLASSIFIED BY MAJOR COMMUNITY TYPE SERVED

The pupil membership of the school districts listed in this section is reported in Bulletin 1012 which is available from Administrative Services of the Department of Education. The list contains 628 school districts that were in existence at the time of testing. Of these, 531 were organized to operate K-12 programs. The remainder, which are denoted by an asterisk (*), were not organized to operate a K-12 program in 1970-71.

DEFINITIONS OF COMMUNITY TYPES[5]

Type I - Metropolitan Core: One or more adjacent cities with a population of 50,000 or more which serve as the economic focal point of their environs.

II - City: Community of 10,000 to 50,000 that serves as the economic focal point of its environs.

III - Town: Community of 2,500 to 10,000 that serves as the economic focal point of its environs.

IV - Urban Fringe: A community of any population size that has as its economic focal point a metropolitan core or a city.

V - Rural Community: A community of less than 2,500.

The numbers preceding school district names are Department of Education county and school district code numbers. The first two digits refer to the county, and the remaining three digits refer to the school district within the county. A key to the county code number is located on page 53.

COMMUNITY TYPE I – METROPOLITAN CORE

81-010 Ann Arbor City S D
13-020 Battle Creek City Schs
09-010 Bay City S D
82-010 Detroit City S D
25-010 Flint City S D
41-010 Grand Rapids City S D
82-060 Hamtramck City Schs
82-070 Highland Park City Schs
38-170 Jackson Union S D
39-010 Kalamazoo City S D
33-020 Lansing Pub S D
61-010 Muskegon City S D
61-020 Muskegon Heights City S D
63-030 Pontiac City S D
73-010 Saginaw City S D

COMMUNITY TYPE II – CITY

46-010 Adrian City S D
13-010 Albion City Schs
04-010 Alpena City S D
11-010 Benton Harbor City S D
83-010 Cadillac Area Pub Schs
21-010 Escanaba Area Pub Schs
70-010 Grand Haven City S D
70-020 Holland City S D
27-020 Ironwood Area Schs
52-170 Marquette City S D
55-100 Menominee Area Pub Sch
56-010 Midland City S D
58-010 Monroe City Pub Schs
50-160 Mt Clemens Comm S D
37-010 Mt Pleasant City S D
11-300 Niles Comm S D
63-100 Novi Comm S D
78-110 Owosso Pub S D
82-100 Plymouth Comm S D
74-010 Port Huron City S D
17-010 Sault Ste Marie Area Schs
11-020 St Joseph City S D
28-010 Traverse City Pub S D
81-020 Ypsilanti City S D

COMMUNITY TYPE III – TOWN

74-030 Algonac Comm S D
03-030 Allegan Pub Schs
29-010 Alma Pub Schs
50-040 Anchor Bay S D
32-010 Bad Axe Pub Schs
58-030 Bedford Pub S D
34-080 Belding Area S D
27-010 Bessemer City S D
54-010 Big Rapids Pub Schs
46-040 Blissfield Comm Schs
22-030 Breitung Twp S D
47-010 Brighton Area Schs
11-310 Buchanan Pub S D
79-020 Caro Comm Schs
14-010 Cassopolis Pub Schs
15-050 Charlevoix Pub S D
23-030 Charlotte Pub Schs
16-015 Cheboygan Area Schs
81-040 Chelsea S D
73-110 Chesaning Union Schs
18-010 Clare Pub Schs
25-150 Clio Area S D
12-010 Coldwater Comm Schs
78-100 Corunna Pub S D
76-080 Croswell Lexington Comm S D
14-020 Dowagiac Union Schs
58-050 Dundee Comm S D
78-030 Durand Area Schools
74-050 East China Twp S D
23-050 Eaton Rapids Pub Schs
36-015 Forest Park S D
62-040 Fremont Pub S D
39-050 Galesburg Augusta Comm S D
69-020 Gaylord Comm Schs
21-025 Gladstone Area Pub S D

[5]These definitions of community types were arrived at in the Fall of 1969, and are identical to the community types reported in the 1969-70 Michigan Educational Assessment Program.

COMMUNITY TYPE III (cont.)

26-040 Gladwin Comm Schs
59-070 Greenville Pub Schs
31-010 Hancock City S D
32-060 Harbor Beach Comm Sch
80-120 Hartford Pub S D
08-030 Hastings Pub S D
30-020 Hillsdale Comm Schs
63-210 Holly Area S D
47-070 Howell Pub Schs
70-190 Hudsonville Pub S D
82-340 Huron S D
63-220 Huron Valley Schs
34-010 Ionia City S D
22-010 Iron Mountain City S D
52-180 Ishpeming Pub S D
29-060 Ithaca Pub Schs
07-040 L'Anse Twp S D
31-130 Lake Linden Hubbell S D
63-230 Lake Orion Comm S D
44-010 Lapeer Pub Schs
41-170 Lowell Area Schs
53-040 Ludington Area S D
51-070 Manistee City Schs
77-010 Manistique Area Schs
13-110 Marshall Pub Schs
81-100 Milan Area Schs
61-180 Montague Pub Schs
02-070 Munising Pub Schs
52-090 Negaunee S D
11-200 New Buffalo Area S D
82-390 Northville Pub Schs
22-025 Norway Vulcan Area Schs
66-050 Ontonagon Area Schs
03-020 Otsego Pub Schs
63-110 Oxford Area Comm S D
80-160 Paw Paw Pub S D
78-080 Perry Pub S D
24-070 Petoskey S D
03-010 Plainwell Comm Schs
31-110 Portage Twp S D
34-110 Portland Pub S D
50-180 Richmond Comm Schs
63-260 Rochester Comm S D
41-210 Rockford Pub Schs
71-080 Rogers Union S D
50-190 Romeo Comm Schs
82-130 Romulus Comm Schs
29-100 Saint Louis Pub Schs
81-120 Saline Area S D
79-145 Sebewaing Unionville Schs
80-010 South Haven Pub Schs
41-240 Sparta Area Schs
49-010 St Ignace City S D
19-140 St Johns Pub Schs
75-010 Sturgis City S D
25-180 Swartz Creek Comm S D
48-040 Tahquamenon Area Schs
35-030 Tawas Area Schs
46-140 Tecumseh Pub Schs
75-080 Three Rivers Pub S D
15-025 Twin Valley Pub S D
82-430 Van Buren Pub Schs
79-150 Vassar Pub Schs
39-170 Vicksburg Comm Schs
27-070 Wakefield Twp S D
63-290 Walled Lake Cons S D
36-025 West Iron County S D
61-240 White Hall Dist Schs
33-230 Williamston Comm Schs
70-350 Zeeland Pub S D

COMMUNITY TYPE IV – URBAN FRINGE

82-020 Allen Park Pub Schs
25-130 Atherton Comm S D
63-070 Avondale S D
09-030 Bangor Twp Schs
19-100 Bath Comm Schs
25-240 Beecher S D
25-060 Bendle Pub S D
25-230 Bentley Comm S D
63-050 Berkley City S D
63-010 Birmingham City S D
63-080 Bloomfield Hills S D
73-180 Bridgeport Comm S D
73-080 Buena Vista S D
25-080 Carman S D
73-030 Carrollton S D
50-010 Center Line Pub Schs
82-025 Cherry Hill S D
50-080 Chippewa Valley Schs
63-150 City of Troy S D
63-090 Clarenceville S D
63-270 Clawson City S D
50-070 Clintondale Pub Schs
39-030 Comstock Pub Schs
41-080 Comstock Park S D
82-230 Crestwood S D
25-140 Davison Comm Schs
19-010 De Witt Pub Schs
82-030 Dearborn City S D
82-040 Dearborn Heights S D 7
41-090 East Grand Rapids Pub Schs
50-020 East Detroit City S D
38-090 East Jackson Pub Schs
33-010 East Lansing S D
82-250 Ecorse Pub S D
09-050 Essexville Hampton S D
*82-210 Fairlane S D
63-200 Farmington Pub S D
63-020 Ferndale City S D
50-090 Fitzgerald Pub Schs
82-180 Flat Rock Comm Schs
25-120 Flushing Comm Schs
41-110 Forest Hills Pub Schs
50-100 Fraser Pub Schs
*61-420 Fruitland Twp S D 1F
61-080 Fruitport Comm Schs
82-050 Garden City S D
25-070 Genesee S D
82-290 Gibraltar S D
41-120 Godfrey Lee Pub S D
41-020 Godwin Heights Pub Schs
25-030 Grand Blanc Comm Schs
23-060 Grand Ledge Pub Schs
41-130 Grandville Pub Schs
82-300 Grosse Ile Twp Schs
82-055 Grosse Pte Pub Schs
*11-670 Hagar Twp S D 6
13-070 Harper Creek Comm Schs
82-320 Harper Woods City S D
33-060 Haslett Pub Schs
63-130 Hazel Park City S D
33-070 Holt Pub Schs
82-080 Inkster City S D
25-110 Kearsley Comm Schs
41-140 Kelloggsville Pub Schs
41-145 Kenowa Hills Pub Schs
41-160 Kentwood Pub Schs
50-140 L'Anse Creuse Pub Schs
50-120 Lake Shore Pub Schs
11-030 Lakeshore S D
13-090 Lakeview Cons S D
50-130 Lakeview Pub Schs
63-280 Lamphere Pub Schs
82-090 Lincoln Park City Schs
82-095 Livonia Pub Schs
46-090 Madison Sch
63-140 Madison Heights S D
74-100 Marysville Pub S D
33-130 Mason Pub Schs
82-045 Melvindale North Allen Park S D
38-120 Michigan Center S D
61-060 Mona Shores S D
25-040 Mt Morris Cons Schs
82-220 North Dearborn Heights S D
61-230 North Muskegon City S D
41-025 Northview Pub Sch
63-250 Oak Park City S D
33-170 Okemos Pub Schs
*23-490 Oneida Twp Sch Dist 3 (Strange)
61-190 Orchard View Schs
39-130 Parchment S D
13-120 Pennfield S D
39-140 Portage Pub Schs
23-090 Potterville Pub Schs
82-110 Redford Union S D
61-220 Reeths Puffer Schs
82-120 River Rouge City Schs

COMMUNITY TYPE IV (cont.)

82-400 Riverview Comm S D
50-030 Roseville City S D
63-040 Royal Oak City S D
73-040 Saginaw Twp Comm Schs
*11-830 Sodus Twp S D 5
50-200 South Lake Schs
82-140 South Redford S D
63-060 Southfield Pub S D
82-405 Southgate Comm S D
70-300 Spring Lake Pub S D
13-030 Springfield City S D
73-255 Swan Valley S D
82-150 Taylor S D
82-155 Trenton Pub Schs
50-210 Utica Comm Schs
50-220 Van Dyke Comm Schs
38-020 Vandercook Lake Pub S D
50-230 Warren Cons Schs
50-240 Warren Woods Pub Schs
33-215 Waverly Schs
82-160 Wayne Comm Schs
63-160 West Bloomfield Twp S D
25-210 Westwood Heights S D
82-240 Westwood Comm Schs
81-150 Willow Run Pub Schs
82-365 Woodhaven S D
82-170 Wyandotte City S D
41-026 Wyoming Pub Schs

COMMUNITY TYPE V – RURAL

31-020 Adams Twp S D
46-020 Addison Comm Schs
58-020 Airport Comm S D
79-010 Akron Fairgrove Schs
05-010 Alba Pub Sch
01-010 Alcona Comm Schs
70-040 Allendale Pub S D
*42-010 Allouez Twp Schs
44-020 Almont Comm Schs
*29-130 Arcada Twp S D 1F
*29-170 Arcada Twp S D 6
06-010 Arenac Eastern S D
50-050 Armada Area Schs
*07-010 Arvon Twp S D
29-020 Ashley Comm Schs
13-050 Athens Area Schs
60-010 Atlanta Comm Schs
06-020 Au Gres Sims S D
*02-010 Au Train Twp Sch
43-040 Baldwin Pub S D
21-040 Baldwin Twp Schs
80-020 Bangor Pub Schs
*80-240 Bangor Twp S D 8
07-020 Baraga Twp S D
21-090 Bark River Harris S D
37-040 Beal City S D
51-020 Bear Lake Sch
15-010 Beaver Island Comm Schs
26-010 Beaverton Rural Schs
05-040 Bellaire Pub Sch
23-010 Bellevue Comm Schs
*64-010 Benona Comm S D
10-015 Benzie County Central Schs
66-010 Bergland Comm S D
*34-140 Berlin Twp S D 3F
*34-150 Berlin Twp S D 5F
11-240 Berrien Springs Pub S D
*27-030 Bessemer Twp S D
21-065 Big Bay de Noc S D
*62-470 Big Jackson S D
73-170 Birch Run Area S D
*32-220 Bloomfield Twp S D 4
*32-230 Bloomfield Twp S D 5
*32-250 Bloomfield Twp S D 7F
80-090 Bloomingdale Pub S D
*49-020 Bois Blanc Pines S D
15-030 Boyne Falls Pub S D
63-180 Brandon Twp S D
11-210 Brandywine Pub S D
29-040 Breckenridge Comm Schs
*49-030 Brevort Twp S D
11-340 Bridgman Pub Sch
17-140 Brimley Pub Schs
46-050 Britton Macon Area Sch
12-020 Bronson Comm S D
76-060 Brown City Comm S D
28-035 Buckley Comm S D
56-020 Bullock Creek S D
*44-190 Burnside Twp S D 1F
75-020 Burr Oak Comm S D
02-020 Burt Twp Sch
78-020 Byron Area Schs
41-040 Byron Center Pub Schs
41-050 Caledonia Comm Schs
31-030 Calumet Pub S D
*31-040 Calumet Twp S D 2
30-010 Camden Frontier Sch
*34-250 Campbell Twp S D 4
74-040 Capac Comm S D
55-010 Carney Nadeau Pub Schs
59-020 Carson City Crystal Area S D
76-070 Carsonville Comm S D
*03-250 Casco Twp S D 4
32-030 Caseville Pub Sch
79-030 Cass City Pub Schs
41-070 Cedar Springs Pub Schs
15-035 Central Lake Pub Sch
59-125 Central Montcalm Pub Schs
75-030 Centreville Pub S D
52-010 Champion Humboldt Spurr S D
31-050 Chassell Twp S D
*69-070 Chester Twp S D 1
54-025 Chippewa Hills S D
*52-020 Chocolay Twp S D
*32-040 Church Sch
*57-100 Clam Union Twp S D 2
63-190 Clarkston Comm S D
39-020 Climax Scotts Comm Schs
46-060 Clinton Comm Schs
56-030 Coleman Comm S D
*32-260 Colfax Twp S D 1F
*32-270 Colfax Twp S D 2
*32-290 Colfax Twp S D 6
*32-300 Colfax Twp S D 7
*54-100 Colfax Twp S D 3F
11-330 Coloma Comm Schs
75-040 Colon Comm S D
38-040 Columbia S D
38-080 Concord Comm Schs
75-050 Constantine Pub S D
70-120 Coopersville Pub S D
80-040 Covert Pub Schs
*07-030 Covington S D
20-015 Crawford Au Sable Schs
*24-010 Cross Village S D
33-040 Dansville Ag Sch
80-050 Decatur Pub Schs
76-090 Deckerville Comm S D
46-070 Deerfield Pub Schs
08-010 Delton Kellogg S D
17-050 De Tour Twp Sch
81-050 Dexter Comm S D
44-050 Dryden Comm Schs
*34-340 Easton Twp S D 6F
11-250 Eau Claire Pub S D
*13-060 Eckford Comm Schs
14-030 Edwardsburg Pub Schs
*64-020 Elbridge Comm S D
05-060 Elk Rapids Schs
32-050 Elkton Pigeon Bayport S D
15-065 Ellsworth Comm Sch
*31-070 Elm River Twp Sch
*52-030 Ely Twp S D
49-055 Engadine Cons Schs
67-020 Evart Pub Sch
66-045 Ewen Trout Creek Cons S D
*40-060 Excelsior Twp S D 1
68-030 Fairview S D
*57-010 Falmouth Elem S D
18-020 Farwell Area Schs
03-050 Fennville Pub Schs
25-100 Fenton Area Pub Schs
*64-030 Ferry Comm S D
*28-060 Fife Lake Comm S D
52-040 Forsyth S D
19-070 Fowler Pub Schs
47-030 Fowlerville Comm Schs
73-190 Frankenmuth S D
10-025 Frankfort Area Schs
*13-340 Fredonia Twp S D 2F
73-200 Freeland Comm S D

COMMUNITY TYPE V (cont.)

53-030 Freesoil Comm S D
29-050 Fulton Schs
11-160 Galien Twp Sch
*03-440 Ganges Twp S D 4
*40-110 Garfield Twp S D 3F
72-010 Gerrish Higgins S D
45-010 Glen Lake Comm S D
80-110 Gobles Pub S D
*64-050 Golden Comm S D
*44-240 Goodland Twp S D 1
*44-260 Goodland Twp S D 2
*44-270 Goodland Twp S D 3
25-050 Goodrich Area S D
62-050 Grant Pub S D
*42-030 Grant Twp Schs
38-050 Grass Lake Comm Schs
*28-220 Green Lake Twp S D 1F
39-065 Gull Lake Comm Schs
35-020 Hale Area Schs
03-100 Hamilton Comm Schs
*80-390 Hamilton Twp S D 6
38-100 Hanover Horton Schs
24-020 Harbor Springs S D
18-060 Harrison Comm Schs
64-040 Hart Pub S D
47-060 Hartland Cons Sch
73-210 Hemlock Pub S D
62-060 Hesperia Comm S D
60-020 Hillman Comm Schs
61-120 Holton Pub Schs
13-080 Homer Comm Schs
03-070 Hopkins Pub Sch
72-020 Houghton Lake Comm Schs
46-080 Hudson Area Schs
58-070 Ida Pub S D
44-060 Imlay City Comm Schs
16-050 Inland Lakes S D
*34-360 Ionia Twp S D 2F
*34-380 Ionia Twp S D 5
*34-390 Ionia Twp S D 6
*52-050 Ishpeming Twp S D
58-080 Jefferson Cons S D
70-175 Jenison Pub Schs
69-030 Johannesburg Central Sch
30-030 Jonesville Comm Schs
51-045 Kaleva Norman Dickson Schs
40-040 Kalkaska Pub Schs
41-150 Kent City Comm Schs
28-090 Kingsley Area S D
79-080 Kingston Comm Schs
78-040 Laingsburg Comm S D
57-020 Lake City Area S D
25-200 Lake Fenton Sch
59-090 Lakeview Comm Schs
25-280 Lakeville Comm S D
34-090 Lakewood Pub Schs
80-130 Lawrence Pub S D
80-140 Lawton Comm S D
45-020 Leland Pub S D
49-040 Les Cheneaux Comm S D
33-100 Leslie Pub Schs
*02-050 Limestone Twp Sch
81-070 Lincoln Cons S D
*32-390 Lincoln Twp S D 1
25-250 Linden Comm S D
30-040 Litchfield Comm Schs
24-030 Littlefield Pub S D
49-110 Mackinac Island Pub S D
16-070 Mackinaw City Pub Schs
05-070 Mancelona Pub Sch
81-080 Manchester Pub S D
83-060 Manton Cons S D
23-065 Maple Valley S D
14-050 Marcellus Comm Schs
27-060 Marenisco S D
67-050 Marion Pub Sch
*13-095 Mar-Lee Cons S D
76-140 Marlette Comm S D
*52-060 Marquette Twp S D
03-060 Martin Pub Schs
53-010 Mason County Central S D
53-020 Mason County Eastern S D
58-090 Mason Cons S D
02-060 Mathias Twp Sch
80-150 Mattawan Cons S D
79-090 Mayville Comm Schs
57-030 McBain Rural Ag S D
74-120 Memphis Comm Schs
75-060 Mendon Comm S D
56-050 Meridian Pub S D
73-230 Merrill Comm S D
83-070 Mesick Cons S D
79-100 Millington Comm Schs
68-010 Mio Au Sable S D
59-045 Montabella Comm S D
25-260 Montrose Twp Schs
*49-070 Moran Twp S D
46-100 Morenci Area Schs
54-040 Morley Stanwood Comm Schs
78-060 Morrice Area Schs
*75-300 Mottville Twp S D 3F
38-130 Napoleon S D
52-080 National Mine S D
50-170 New Haven Comm Schs
78-070 New Lothrop Area Pub S D
62-070 Newaygo Pub S D
30-050 North Adams Pub Schs
44-090 North Branch Area Schs
55-115 North Central Area Schs
22-045 North Dickinson County S D
32-080 North Huron Schs
*34-480 North Plains Twp S D 1F
45-040 Northport Pub S D
38-140 Northwest S D
*75-100 Nottawa Comm Schs
61-065 Oakridge S D
*40-140 Oliver Twp S D 2
23-080 Olivet Comm Schs
71-050 Onaway Area Comm S D
51-060 Onekema Cons Sch
46-110 Onsted Comm Schs
*34-510 Orange Twp S D 1F
*34-530 Orange Twp S D 5
*34-600 Orleans Twp S D 9
*34-610 Orleans Twp S D 10
31-100 Osceola Twp S D
35-010 Oscoda Area Schs
19-120 Ovid Elsie Area Schs
32-090 Owendale Gagetown Area S D
*34-040 Palo Comm S D
76-180 Peck Comm Sch
24-040 Pellston Pub S D
64-070 Pentwater Pub S D
19-125 Pewamo Westphalia Comm S D
17-090 Pickford Pub Schs
47-080 Pinckney Comm Schs
09-090 Pinconning Area Schs
67-055 Pine River Area Schs
*62-080 Pineview S D
30-060 Pittsford Rural Ag Schs
32-120 Port Austin Pub Schs
32-130 Port Hope Comm Schs
*34-710 Portland Twp S D 5F
71-060 Posen Cons S D
*52-100 Powell Twp S D
12-040 Quincy Comm S D
21-060 Rapid River Pub Schs
61-210 Ravenna Pub Schs
30-070 Reading Comm Schs
*32-140 Red Sch
67-060 Reed City Pub Schs
79-110 Reese Pub Schs
52-110 Republic Michigamme Schs
11-033 River Valley S D
*29-090 Riverdale Elem Sch
21-130 Rock Pub S D
02-080 Rock River Twp Sch
*34-750 Ronald Twp S D 8
*23-590 Roxand Twp S D 12
17-110 Rudyard Twp Sch
46-130 Sand Creek Comm Schs
*52-130 Sands Twp S D
76-210 Sandusky Comm S D
*76-710 Sanilac Twp S D 1
34-120 Saranac Comm S D
03-080 Saugatuck Pub Schs
39-160 Schoolcraft Comm Schs
*34-800 Sebewa Twp S D 8
*29-790 Seville Twp S D 4F
64-080 Shelby Pub S D
37-060 Shepherd Pub S D
*32-530 Sheridan Twp S D 4
*32-540 Sheridan Twp S D 5

COMMUNITY TYPE V (cont.)

*32-610 Sigel Twp S D 3
*32-620 Sigel Twp S D 4
*32-630 Sigel Twp S D 6
*40-020 South Boardman Area Sch
63-240 South Lyon Comm Schs
38-150 Springport Pub Sch
73-240 St Charles Comm S D
*72-040 St Helen S D
*49-100 St Ignace Twp S D
06-050 Standish Sterling Comm S D
*31-140 Stanton Twp S D
55-120 Stephenson Area Pub Schs
33-200 Stockbridge Comm Schs
58-100 Summerfield S D
*29-110 Sumner Elem Sch
45-050 Suttons Bay Pub S D
13-130 Tekonsha Comm Sch
08-050 Thornapple Kellogg S D
59-080 Tri-County Area Schs
32-170 Ubly Comm Schs
13-135 Union City Comm S D
69-040 Vanderbilt Area Sch
*32-650 Verona Twp S D 1F
*32-680 Verona Twp S D 5
59-150 Vestaburg Comm Schs
30-080 Waldron Area Schs
64-090 Walkerville Rural Comm S D
63-300 Waterford Twp S D
27-080 Watersmeet Twp S D
11-320 Watervliet S D
03-040 Wayland Union Schs
*64-095 Weare Crystal Comm S D
33-220 Webberville Pub Schs
*52-160 Wells Twp S D
65-045 West Branch Rose City Area Schs
70-070 West Ottawa Pub S D
38-010 Western S D
62-090 White Cloud Pub Schs
.6-070 White Pine S D
75-070 White Pigeon Comm S D
17-160 Whitefish Sch
58-110 Whiteford Ag S D
81-140 Whitmore Lake Pub S D
35-040 Whittemore Prescott Area S D
16-100 Wolverine Comm S D
74-130 Yale Pub S D

COUNTY CODE NUMBERS

01 Alcona
02 Alger
03 Allegan
04 Alpena
05 Antrim
06 Arenac
07 Baraga
08 Barry
09 Bay
10 Benzie
11 Berrien
12 Branch
13 Calhoun
14 Cass
15 Charlevoix
16 Cheboygan
17 Chippewa
18 Clare
19 Clinton
20 Crawford
21 Delta
22 Dickinson
23 Eaton
24 Emmet
25 Genesee
26 Gladwin
27 Gogebic
28 Grand Traverse
29 Gratiot
30 Hillsdale
31 Houghton
32 Huron
33 Ingham
34 Ionia
35 Iosco
36 Iron
37 Isabella
38 Jackson
39 Kalamazoo
40 Kalkaska
41 Kent
42 Keweenaw
43 Lake
44 Lapeer
45 Leelanau
46 Lenawee
47 Livingston
48 Luce
49 Mackinac
50 Macomb
51 Manistee
52 Marquette
53 Mason
54 Mecosta
55 Menominee
56 Midland
57 Missaukee
58 Monroe
59 Montcalm
60 Montmorency
61 Muskegon
62 Newaygo
63 Oakland
64 Oceana
65 Ogemaw
66 Ontonagon
67 Osceola
68 Oscoda
69 Otsego
70 Ottawa
71 Presque Isle
72 Roscommon
73 Saginaw
74 St. Clair
75 St. Joseph
76 Sanilac
77 Schoolcraft
78 Shiawassee
79 Tuscola
80 Van Buren
81 Washtenaw
82 Wayne
83 Wexford

APPENDIX B

DEFINITIONS OF THE EDUCATIONAL ASSESSMENT MEASURES

For the reader's convenience, the twenty-five measures reported in the Michigan Educational Assessment Program are defined below. Those measures which are newly added since the 1969-70 assessment program are indicated by an asterisk (*).

I. SCHOOL RESOURCES

A. Human Resources

Seven human resource measures were included in the 1970-71 educational assessment program: (1) *pupil-professional instructional staff ratio;* (2) *pupil-teacher ratio;* (3) *percent of teachers with five or more years experience;* (4) *average years teaching experience (1969-70);* (5) *percent of teachers with Masters degree;* (6) *percent of teachers earning $11,000 or more;* (7) *average salary of teachers (1969-70).* Each measure is described below.

1. Pupil-Professional Instructional Staff Ratio*

The information to compute this measure was taken from the "Fourth Friday Report". The total number of pupils was obtained by counting all pupils enrolled in grades one through twelve *except* special education pupils. Pupils who attended the school for a portion of the day and attended a nonpublic school for the remainder of the day, were included on a full time equivalency basis. For example, a pupil who attended the school for one-fourth of each day and attended a nonpublic school for the other three-fourths of each day was counted as 1/4 pupil. The total number of professional instructional staff was obtained by adding the number of elementary and secondary staff (expressed as full time equivalency) in the following categories; principals, assistant principals, other administrators (excluding district-wide administrative staff), consultants and supervisors, classroom teachers, librarians, audio-visual staff, guidance personnel and school counselors, psychological staff, radio and television instructional staff, teachers of the homebound, and other instructional staff. In order to obtain the pupil-professional instructional staff ratio, the total number of pupils was divided by the total number of professional instructional staff.

2. Pupil-Teacher Ratio

The information to compute this measure was taken from the "Fourth Friday Report". The total number of pupils was obtained by counting all pupils enrolled in grades one through twelve *except* special education pupils. Pupils who attended the school for a portion of the day and attended a nonpublic school for the remainder of the day, were included on a full time equivalency basis. The total number of teachers was obtained by adding the number of elementary and secondary classroom teachers. *Kindergarten teachers, special education teachers, and non-classroom teachers were not included in the total.* In order to obtain the *pupil-teacher ratio,* the total number of pupils was divided by the total number of teachers.

3. Percent of Teachers with Five or More Years Experience*

The information to compute this measure was taken from the "Fourth Friday Report". It was obtained by dividing the number of classroom teachers (full-time and part-time) with five years or more teaching experience, by the total number of classroom teachers (full-time and part-time). The resultant value was multiplied by 100 to convert to a percent figure.

4. Average Years Teaching Experience (1969-70)

The information to compute this measure was taken from records provided by the local district and filed with the Michigan Department of Education. The information was based on the 1969-70 academic year. Excluded from the calculation of average years teaching experience were individuals who were employed to work exclusively in the areas of administration, special education, adult education, guidance and counseling, and nursery work. All other professional personnel employed by the district were included in calculating average years of teaching experience. It was obtained by dividing the total years of teaching experience by the total number of teachers (full-time and part-time).

5. Percent of Teachers with Masters Degree

The information to compute this measure was taken from the "Fourth Friday Report". It was obtained by dividing the number of classroom teachers (full-time and part-time) who had completed all of the requirements for a Masters degree by the total number of classroom teachers (full-time and part-time). The resultant value was multiplied by 100 to convert to a percent figure.

6. Percent of Teachers Earning $11,000 or More*

The information to compute this measure was taken from the "Fourth Friday Report". Teachers

were considered to earn $11,000 or more if their contractual salary for the academic year (excluding summer) was at least $11,000. *Supplementary money paid for responsibilities such as coaching was not included as part of the contractual salary.* Part-time teachers were considered to earn at least $11,000 if their full-time salary would equal at least $11,000. This measure was obtained by dividing the number of classroom teachers (full-time and part-time) who earned at least $11,000 by the total number of classroom teachers (full-time and part-time). The result was multiplied by 100 to convert to a percent figure.

7. Average Salary of Teachers (1969-70)

The information necessary to compute this measure was taken from records provided by the local districts and filed with the Michigan Department of Education. In order to compute the average salary of teachers, two values were necessary: (1) total salaries paid to teachers and (2) number of teachers. The value for total salaries paid to teachers was taken from financial information reported for the fiscal year which ended June 30, 1970. Included in the total were salaries paid to elementary teachers and salaries paid to secondary teachers (full-time and part-time); *salaries paid to special education teachers were not included.* The number of teachers was based on information reported as of September 26, 1969 (the fourth Friday of the 1969-70 academic year). It is a count of elementary and secondary teachers employed as of that date.

The average salary paid to elementary and secondary teachers was computed by dividing the total salaries by the number of teachers. Since each of these two figures is taken from a different report prepared at a different time of the year, *the resultant average salary must be considered as an estimate.* It could be in error if the number of teaching positions actually paid for during the academic year differed from the number of teachers reported as of the fourth Friday after Labor Day.

B. School Financial Resources

Five school financial resources were included in the 1970-71 educational assessment program: (1) *state equalized valuation per resident pupil;* (2) *local revenue per pupil;* (3) *state school aid per pupil;* (4) *K-12 instructional expense per pupil;* and (5) *total current operating expense per pupil.* These measures are available at the district level only and are based on 1969-70 data. Each measure is described in detail below.

8. State Equalized Valuation per Resident Pupil (1969-70)

The information to compute this measure was taken from records filed with the Michigan Department of Education. The total state equalized valuation (SEV) is equal to approximately 50 percent of the fair cash value of the real and personal property in the district. It is calculated as of May 22, 1969 (the fourth Monday in May) and applied to the 1969-70 academic year. In order to obtain a per pupil value for SEV, the total SEV was divided by resident membership. Resident membership includes all pupils residing in the district who attended public school in that district or in any other district; resident membership excludes pupils who attend school in the district but reside in another district, as well as excluding pupils who attend private or parochial schools.

9. Local Revenue per Pupil (1969-70)

The information to compute this measure was taken from records provided by the local districts and filed with the Michigan Department of Education. The financial information was reported for the fiscal year which ended June 30, 1970. The total value for local revenue included revenue from sources such as the following: property tax (the major source of local revenue), local government appropriations, tuition, transportation fees, revolving funds (i.e., revenue from food services, book stores, and student body activities) rent from school facilities, etc. Tuition from community college patrons was not included in the calculation. In order to obtain local revenue per pupil, total local revenue was divided by the total number of pupils enrolled in the district as of September 26, 1969 (the fourth Friday of the 1969-70 academic year).

10. State School Aid per Pupil (1969-70)

The information to compute this measure was taken from records provided by the local districts and filed with the Michigan Department of Education. The financial data were reported for the fiscal year which ended June 30, 1970. The value for total state school aid represented the direct appropriations from the state *including appropriations for state school aid, driver education, underprivileged children, and other state grants.* In order to compute the *state school aid per pupil,* the total state school aid was divided by the total number of pupils enrolled in the district as shown in the "Fourth Friday Report".

11. K-12 Instructional Expense per Pupil (1969-70)

The information to compute this measure was taken from records provided by the local districts and filed with the Michigan Department of Education. The financial information was reported for the fiscal year which ended June 30, 1970. The total K-12 instructional expense included expenditures for salaries and supplies connected with elementary education and secondary education. Expenditures associated

with community colleges, special education, summer school, and adult education were omitted from the calculation. In order to obtain a value for instructional expense per pupil, total K-12 instructional expense was divided by the total number of pupils enrolled in the district less special education students as shown in the "Fourth Friday Report".

12. Total Current Operating Expense per Pupil (1969-70)

The information to compute this measure was taken from records provided by the local districts and filed with the Michigan Department of Education. The financial information was reported for the fiscal year which ended June 30, 1970. The total current operating expense included expenses connected with administration, attendance, health services, pupil transportation, plant operation, plant maintenance, and fixed charges, in addition to instructional expenses (including elementary, secondary, special education, summer school, and adult education instructional expenses). Community college expenses were not included in the computation of total operating expense, the value for total current operating expense was divided by the total number of pupils enrolled in the district as shown in the "Fourth Friday Report".

II. STUDENT BACKGROUND

A. Student Racial-Ethnic Background*

(13) Percent of racial-ethnic minority students was computed for each school in the state. The information to compute this measure was taken from the "Fourth Friday Report". The total number of racial-ethnic minority students included all racial-ethnic minority students in the school *except* pre-kindergarten students. Kindergarten students, special education students and part-time students were all included in the total. Since the information was expressed in terms of a head count, part-time students were not counted differently from full-time students. Students were classified as belonging to a racial-ethnic minority group if they were considered by the school to be of that group. The total number of students included all students except pre-kindergarten students. Again kindergarten students, special education students, and part-time students were included in the total. In order to calculate the *percent of racial-ethnic minority* students, the total number of racial-ethnic minority students was divided by the total number of students and the resultant figure was multiplied by 100.

B. Student Socioeconomic Background

(14) Students' estimate of socioeconomic status was computed for each school in the state. The assessment battery included twenty-five questions designed to indirectly assess group socioeconomic background. The questions concerned biographical information, educational attainment of parents, quality housing, family structure and stability, occupation, income, and possessions. For this measure, the questions asked of the fourth graders and the questions asked of the seventh graders were identical. It is important to note that the students anonymously responded to these questions; only the school name—not the student's name—was recorded on the answer sheet. Thus, it is impossible for anyone to ascertain the responses of a particular individual. *Indeed, the purpose of the instrument is to arrive at a group measure not individual pupil measures.*

III. SCHOOL/STUDENT PERFORMANCE

A. Performance on Attitude Measures

Three students attitude measures were included in the 1970-71 educational assessment battery. These were: (1) *importance of school achievement*; (2) *self-perception*; and (3) *attitude toward school*. For these three measures, students in the fourth and seventh grades received identical questions. As in the case of the student socioeconomic background measure, the *purpose of the attitude instrument is to arrive at a group measure not individual pupil measures.* Each is discussed below.

15. Importance of School Achievement

The assessment battery included eight questions regarding the importance of school achievement. Here, too, it is important to note that the students anonymously responded to these questions; only the school name—not the student's name—was recorded on the answer sheet. Thus, again it is impossible for anyone to ascertain the response of a particular individual. A high score indicates that on the average pupils believe good school achievement is important.

16. Self-Perception

The assessment battery included seven questions designed to measure the student's self-perception. Again, the students responded anonymously. A high score indicates that on the average pupils believe themselves to be quite capable in school situations.

17. Attitude Toward School

The assessment battery included seven questions designed to measure the student's attitude toward school. Responses were anonymous. A high score indicates that on the average pupils have a positive attitude toward school.

B. Performance on Basic Skills Measures

Performance on the basic skills portion was determined by measuring the following: (1) *vocabu-*

lary; (2) *reading;* (3) *mechanics of written English;* (4) *mathematics;* and (5) *composite achievement.* The number of items and time limits were increased for these tests in order to produce individually reliable measures. Additional technical information concerning these measures will be provided in a future educational assessment report.

18. Vocabulary

The *vocabulary* test contained 50 verbal analogy problems which were designed to measure students' knowledge of the meaning of words and the relationships between words and concepts. The time allowed to work on this section was 20 minutes at both grades.

19. Reading

The *reading* test contained 50 questions which assessed paragraph comprehension, ability to understand words from the context in which they are encountered, and ability to identify the correct synonym for a word. Students at both grade levels were allowed 35 minutes to work on this section.

20. Mechanics of Written English

The *mechanics of written English* test consisted of four parts, each separately timed. In part A, spelling, students were to identify misspelled words. The fourth grade test presented 15 items to be completed in five minutes; the seventh grade test had 20 items and allowed six minutes. In part B, effectiveness of written expression, students were required to select the best way of expressing a thought. The test contained 14 items for each grade and nine minutes were allowed for its completion. In part C, written usage, students were to recognize grammatical errors. The fourth grade test contained 14 items and the seventh grade test contained 17 items; both tests to be completed in eight minutes. In part D, punctuation and capitalization, students were to recognize errors of punctuation and capitalization. The fourth grade test presented 12 items to be completed in eight minutes, and the seventh grade test presented 14 items to be completed in seven minutes.

21. Mathematics

The *mathematics* test involved mathematical reasoning and problem solving. In addition, problems in the seventh grade test involved algebraic and geometric concepts. Each grade had 30 minutes in which to answer 40 questions.

22. Basic Skills Composite Achievement

A *composite achievement* score was computed for each student. The composite score was obtained by averaging the individual's standard scores on *reading*, the *mechanics of written English*, and the *mathematics* tests. The test scores were averaged in such a way that each score contributed equally to the average despite the fact that the number of items was different on the three tests. IT SHOULD BE NOTED THAT THE *VOCABULARY* TEST SCORE WAS NOT INCLUDED IN THE CALCULATION OF THE COMPOSITE ACHIEVEMENT SCORE. The *vocabulary* score is believed to respond more slowly to the influence of schooling. Therefore, the *vocabulary* score was excluded to focus the composite achievement score upon those aspects of achievement that respond more readily to change.

C. Performance on Dropout Rate (1969-70)*

(23) School dropout rate was computed from information taken from records provided by the local districts and filed with the Michigan Department of Education. The measure was based on the local district's enrollment of students in grades 9-12 during the 1968-69 academic year. Included as dropouts were students who left school for any of the following reasons: married, sent to corrective institution, accepted employment, or dropped from attendance roll because absent 10-30 days. *Not* included as dropouts were students who left the district because they transferred to another district, were sent to institutions for defectives, or the student was sick or died. The dropout rate is calculated by dividing the number of dropouts by the sum of the number of students enrolled on the "fourth Friday" plus new students enrolled during the year. The resultant figure was multiplied by 100.

IV. SCHOOL AND DISTRICT SIZE

(24) Number of Students in school was obtained by counting all pupils enrolled in grades one through twelve *except* special education pupils. Kindergarten pupils were not counted. Pupils who attended the school for a portion of the day and attended a nonpublic school for the remainder of the day, were included on a full time equivalency basis. For example, a pupil who attended a school for one-fourth of each day and attended a nonpublic school for the other three-fourths of each day was counted as 1/4 pupil.

(25) District state aid membership* is defined as the total number of pupils legally enrolled in the district at the close of school on the fourth Friday following Labor Day of the school year. The count includes prorated portions of instructional time spent by private school pupils in the public school district.